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OM protein - protein search, using sw model

Run on: February 14, 2005, 15:17:38 ; Search time 43 Seconds
(without alignments)
1131.888 Million cell updates/sec

Title: US-10-614-076-98

Perfect score: 3406

Sequence: 1 MNPNRSEHTIKTPENSEL.....SFVSEKIVDKIEFIPVQL 652

Scoring table: BLOSUM62

Gapop 10.0 , Gapext 0.5

Searched: 513545 seqs, 74649064 residues

Total number of hits satisfying chosen parameters: 513545

Minimum DB seq length: 0

Maximum DB seq length: 2000000000

Post-processing: Minimum Match 0%

Maximum Match 100%

Listing first 150 summaries

Database : Issued Patents AA:*

- 1: /cgn2_6/ptodata/1/iaa/5A COMB.pep.*
- 2: /cgn2_6/ptodata/1/iaa/5B COMB.pep.*
- 3: /cgn2_6/ptodata/1/iaa/6A COMB.pep.*
- 4: /cgn2_6/ptodata/1/iaa/6B COMB.pep.*
- 5: /cgn2_6/ptodata/1/iaa/PCRUS COMB.pep.*
- 6: /cgn2_6/ptodata/1/iaa/backfiles1.pep.*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	Score	Query Match	Length	ID	Description
1	3406	100.0	652	3	US-08-996-441B-98
2	3406	100.0	652	3	US-08-996-441B-111
3	3406	100.0	652	3	US-08-993-722A-98
4	3406	100.0	652	3	US-08-993-722A-111
5	3406	100.0	652	3	US-08-993-170A-98
6	3406	100.0	652	3	US-08-993-170A-111
7	3406	100.0	652	3	US-08-993-775B-98
8	3406	100.0	652	3	US-08-993-775B-111
9	3406	100.0	652	4	US-09-377-466B-2
10	3406	100.0	652	4	US-09-427-770-98
11	3406	100.0	652	4	US-09-427-770-111
12	3406	100.0	652	4	US-09-427-769-98
13	3406	100.0	652	4	US-09-427-769-111
14	3406	100.0	652	6	5187091-2
15	3406	100.0	652	6	5187091-2
16	3402	99.9	652	3	US-08-996-441B-68
17	3402	99.9	652	3	US-08-993-722A-68
18	3402	99.9	652	3	US-08-993-170A-68
19	3402	99.9	652	3	US-08-993-775B-68
20	3402	99.9	652	4	US-09-427-770-68
21	3402	99.9	652	4	US-09-427-769-68
22	3401	99.9	652	3	US-08-996-441B-14
23	3401	99.9	652	3	US-08-993-722A-14
24	3401	99.9	652	3	US-08-993-170A-14
25	3401	99.9	652	3	US-08-993-775B-14
26	3401	99.9	652	4	US-09-377-466B-6
27	3401	99.9	652	4	US-09-427-770-14

us-10-614-076-98.ra1

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102 3393 99.6 652 3 US-08-993-775B-66
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105 3393 99.6 652 4 US-09-427-769-20
106 3393 99.6 652 4 US-09-427-769-66
107 3392 99.6 652 3 US-08-996-441B-6
108 3392 99.6 652 3 US-08-996-441B-30
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117 3392 99.6 652 3 US-08-993-775B-30
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142 3390 99.5 652 3 US-08-993-170A-4
143 3389 99.5 652 3 US-08-993-775B-4
144 3389 99.5 652 4 US-09-427-770-4
145 3389 99.5 652 4 US-09-427-769-4
146 3389 99.5 652 4 US-08-996-441B-52
147 3389 99.5 651 3 US-08-993-722A-52
148 3387.5 99.5
149 3387.5
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ALIGNMENTS

RESULT 1
US-08-996-441B-98
; Sequence 98, Application US/08996441B
; Patent No. 6023013
; GENERAL INFORMATION:
; APPLICANT: English, Leigh H.
; APPLICANT: Brussock, Susan M.
; APPLICANT: Malvar, Thomas M.
; APPLICANT: Bryson, James W.
; APPLICANT: Kulesza, Caroline A.
; APPLICANT: Walters, Frederick S.
; APPLICANT: Slatin, Stephen L.
; APPLICANT: Von Tersch, Michael A.
; APPLICANT: Romano, Charles
; TITLE OF INVENTION: INSECT-RESISTANT TRANSGENIC PLANTS
; NUMBER OF SEQUENCES: 113
; CORRESPONDENCE ADDRESS:
; ADDRESSEE: Arnold, White & Durkee

STREET: P.O. Box 4433
CITY: Houston
STATE: Texas
COUNTRY: USA
ZIP: 77210
COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: PatentIn Release #1.0, Version #1.30
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/996.441B
FILING DATE: 18-DEC-1997
CLASSIFICATION: 800
ATTORNEY/AGENT INFORMATION:
NAME: Kitchell, Barbara S.
REGISTRATION NUMBER: 33,928
REFERENCE/DOCKET NUMBER: MECO:151
TELECOMMUNICATION INFORMATION:
TELEPHONE: 512/418-3000
TELEFAX: 512/474-7577
INFORMATION FOR SEQ ID NO: 98:
SEQUENCE CHARACTERISTICS:
LENGTH: 652 amino acids
TYPE: amino acid
TOPOLOGY: linear
MOLECULE TYPE: protein
US-08-996-441B-98
Query Match 100.0%; Score 3406; DB 3; Length 652;
Best Local Similarity 100.0%; Pred. No. 6e-287; Indels 0; Gaps 0;
Matches 652; Conservative 0; Mismatches 0;
QY 1 MNPNNRSEHDTIKVTPNSELOTNHNOYPLADNPSTLEELNYKEFLRMTEDESTEVLDS 60
Db 1 MNPNNRSEHDTIKVTPNSELOTNHNOYPLADNPSTLEELNYKEFLRMTEDESTEVLDS 60
QY 61 TVKDAVGTGIVGVQILGVGVFPAGALTSFYOSFELNTWPSDADPWKAFMAQVEVLIDK 120
Db 61 TVKDAVGTGIVGVQILGVGVFPAGALTSFYOSFELNTWPSDADPWKAFMAQVEVLIDK 120
QY 121 KIEYAKSKALAELOQGNFEDYVNALNSWKKTPLSLRSKRSQDRIRLFSQAESHFRN 180
Db 121 KIEYAKSKALAELOQGNFEDYVNALNSWKKTPLSLRSKRSQDRIRLFSQAESHFRN 180
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Db 181 SMPSPFAVSKFVLFLPTVAQAANTHLLLLKDAQVFGSEGYSSDVAEFVHROLKLTQOY 240
QY 241 TDHCVNWNVNGLGRGSTDYDAWKFNFRREMTLTVDLVLVLPFFYDIRLYSGVKTEL 300
Db 241 TDHCVNWNVNGLGRGSTDYDAWKFNFRREMTLTVDLVLVLPFFYDIRLYSGVKTEL 300
QY 301 TRDIFTDPIFSLNTLQEGPTFLSIENSIRKPHLFDYLOGIEFHTRLQPGYFGKDSFNW 360
Db 301 TRDIFTDPIFSLNTLQEGPTFLSIENSIRKPHLFDYLOGIEFHTRLQPGYFGKDSFNW 360
QY 361 SGNVETRPISGSKTITSPFYGDKSTPEVKLSFDGQKVYRTIANTDVAAPNGKVYL 420
Db 361 SGNVETRPISGSKTITSPFYGDKSTPEVKLSFDGQKVYRTIANTDVAAPNGKVYL 420
QY 421 VTKVDFSQDDQKNETSTQTYDSKENNGHVSAQSDIDQLPETTDEPLEKAYSHQLNVAE 480
Db 421 VTKVDFSQDDQKNETSTQTYDSKENNGHVSAQSDIDQLPETTDEPLEKAYSHQLNVAE 480
QY 481 CFMLQDRRGITIPFTWTHRSVDFNTDAEKTITQPVVKAYALSSGASIIEGPGFTGNL 540
Db 481 CFMLQDRRGITIPFTWTHRSVDFNTDAEKTITQPVVKAYALSSGASIIEGPGFTGNL 540
QY 541 LFLKSSNSIAKFKVTLNSAALLQRYVRIRVASTTNLFLVQNSNNDFLVIYINKTMNK 600
Db 541 LFLKSSNSIAKFKVTLNSAALLQRYVRIRVASTTNLFLVQNSNNDFLVIYINKTMNK 600

QY 601 DDLTYQTFDLATNSNMGSGDKNELIIGAESFVSNKIIYDKIBFIPVOL 652
Db 601 DDLTYQTFDLATNSNMGSGDKNELIIGAESFVSNKIIYDKIBFIPVOL 652

RESULT 2

US-08-996-441B-111
; Sequence 111, Application US/08996441B
; Patent No. 6023013
; GENERAL INFORMATION:
; APPLICANT: English, Leigh H.
; APPLICANT: Brussock, Susan M.
; APPLICANT: Malvar, Thomas M.
; APPLICANT: Bryson, James W.
; APPLICANT: Kulesza, Caroline A.
; APPLICANT: Walters, Frederick S.
; APPLICANT: Slatin, Stephen L.
; APPLICANT: Von Tersch, Michael A.
; APPLICANT: Romano, Charles
; TITLE OF INVENTION: INSECT-RESISTANT TRANSGENIC PLANTS
; NUMBER OF SEQUENCES: 113
; CORRESPONDENCE ADDRESS:
; ADDRESSEE: Arnold, White & Durkee
; STREET: P.O. Box 4433
; CITY: Houston
; STATE: Texas
; COUNTRY: USA
; ZIP: 77210
; COMPUTER READABLE FORM:
; MEDIUM TYPE: Floppy disk
; COMPUTER: IBM PC compatible
; OPERATING SYSTEM: PC-DOS/MS-DOS
; SOFTWARE: Patent In Release #1.0, Version #1.30
; CURRENT APPLICATION DATA:
; APPLICATION NUMBER: US/08/996,441B
; FILING DATE: 18-DEC-1997
; CLASSIFICATION: 800
; ATTORNEY/AGENT INFORMATION:
; NAME: Kitchell, Barbara S.
; REGISTRATION NUMBER: 33,928
; REFERENCE/DOCKET NUMBER: MECO:151
; TELECOMMUNICATION INFORMATION:
; TELEPHONE: 512/418-3000
; TELEFAX: 512/474-7577
; INFORMATION FOR SEQ ID NO: 111:
; SEQUENCE CHARACTERISTICS:
; LENGTH: 652 amino acids
; TYPE: amino acid
; STRANDEDNESS:
; TOPOLOGY: linear
US-08-996-441B-111

Query Match 100.0%; Score 3406; DB 3; Length 652;
Best Local Similarity 100.0%; Pred. No. 6a-287;
Matches 652; Conservative 0; Mismatches 0; Indels 0; Gaps 0;
QY 1 MNPNNSEHDTIKVTNSELOTHNNOYPLADNPNSTLEELNYKEFLRMTEDSSSTEVLDS 60
Db 1 MNPNNSEHDTIKVTNSELOTHNNOYPLADNPNSTLEELNYKEFLRMTEDSSSTEVLDS 60
QY 61 TVKDAVGTGIVSVVQILGVVGVFPFAGALTSFYQSFLNTIWPSDADPWKAFMAQVEVLIDK 120
Db 61 TVKDAVGTGIVSVVQILGVVGVFPFAGALTSFYQSFLNTIWPSDADPWKAFMAQVEVLIDK 120
QY 121 KIEEYAKSALAELOGIQQNFEDYVNALSNWKTPTLSLRKSRQDRIRLFQSAESHFRN 180
Db 121 KIEEYAKSALAELOGIQQNFEDYVNALSNWKTPTLSLRKSRQDRIRLFQSAESHFRN 180
QY 181 SMPSPAVSKFEVLFLPTYAQAANTHLLLLKDAQVFGREMGYSSEDAEFVHROLKLTQY 240
Db 181 SMPSPAVSKFEVLFLPTYAQAANTHLLLLKDAQVFGREMGYSSEDAEFVHROLKLTQY 240
QY 241 TDHCNVNWNVGLNLRGSTRYDAWVKFNRRREMTLTVDLIVLFPFYDIRLYSKGVKTEL 300

Db 241 TDHCNVNWNVGLNLRGSTRYDAWVKFNRRREMTLTVDLIVLFPFYDIRLYSKGVKTEL 300
QY 301 TRDIFTDPIFSLNTLOEYGTFLSIENIRKPHLFDYLOGIEFHTRLQPGYFGKDSFNW 360
Db 301 TRDIFTDPIFSLNTLOEYGTFLSIENIRKPHLFDYLOGIEFHTRLQPGYFGKDSFNW 360
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Db 601 DDLTYQTFDLATNSNMGSGDKNELIIGAESFVSNKIIYDKIBFIPVOL 652

RESULT 3
US-08-993-722A-98
; Sequence 98, Application US/08993722A
; Patent No. 6060594
; GENERAL INFORMATION:
; APPLICANT: English, Leigh H.
; APPLICANT: Brussock, Susan M.
; APPLICANT: Malvar, Thomas M.
; APPLICANT: Bryson, James W.
; APPLICANT: Kulesza, Caroline A.
; APPLICANT: Walters, Frederick S.
; APPLICANT: Slatin, Stephen L.
; APPLICANT: Von Tersch, Michael A.
; APPLICANT: Romano, Charles
; TITLE OF INVENTION: NUCLEIC ACID SEGMENTS ENCODING MODIFIED
; NUMBER OF SEQUENCES: 113
; CORRESPONDENCE ADDRESS:
; ADDRESSEE: Arnold, White & Durkee
; STREET: P.O. Box 4433
; CITY: Houston
; STATE: Texas
; COUNTRY: USA
; ZIP: 77210
; COMPUTER READABLE FORM:
; MEDIUM TYPE: Floppy disk
; COMPUTER: IBM PC compatible
; OPERATING SYSTEM: PC-DOS/MS-DOS
; SOFTWARE: Patent In Release #1.0, Version #1.30
; CURRENT APPLICATION DATA:
; APPLICATION NUMBER: US/08/993,722A
; FILING DATE: 18-DEC-1997
; CLASSIFICATION: 435
; ATTORNEY/AGENT INFORMATION:
; NAME: Kitchell, Barbara S.
; REGISTRATION NUMBER: 33,928
; REFERENCE/DOCKET NUMBER: MECO:149
; TELECOMMUNICATION INFORMATION:
; TELEPHONE: 512/418-3106
; TELEFAX: 512/474-7577
; INFORMATION FOR SEQ ID NO: 98:
; SEQUENCE CHARACTERISTICS:
; LENGTH: 652 amino acids
; TYPE: amino acid
; TOPOLOGY: linear

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MOLECULE TYPE: protein
US-08-993-722A-98
Query Match 100.0%; Score 3406; DB 3; Length 652;
Best Local Similarity 100.0%; Pred. No. 6e-287;
Matches 652; Conservative 0; Mismatches 0; Indels 0; Gaps 0;
QY 1 MNPNNRSEHDTIKVTPNSELOTHNQYPLADPNSTLEELNYKEFLRMTEDSSTVELDNS 60
DB 1 MNPNNRSEHDTIKVTPNSELOTHNQYPLADPNSTLEELNYKEFLRMTEDSSTVELDNS 60
QY 61 TVKDAVGTGIVGVQILGVVGVPPFAGALTSPYQSFNTIWPSPDADPKAFMAQVEVLIDK 120
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DB 121 KIEEYAKSKALAELOGLQNNFEDYVNALNSWKKTPLSLRSKRSQDRIRLELFSQAESHPN 180
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DB 181 SMPFSAVSKFEVLFLPTYAQAANTHLLKDAQVFGEEGYSSEDAEFYHROLKLTQOY 240
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DB 241 TDHCVNWNVGLNGSLRGSTYDAWKFNRRREMTLTVDLIVLFPFYDIRLSKGVKTEL 300
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DB 301 TRDIFTDPIFSLNTLOEYGPFTLSIENSIRKPHLPDYLOGIEFHTRLQPGYFGKDSFNYW 360
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DB 361 SGNVETRPSIGSSKTTITSPYGDKSTPEVKLSFDGQKVYRTIANTDVAAMPNGKVYLG 420
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DB 481 CFLMQDRRGTTIPFFTWTHRSVDFNTIDAEKTIQLPVVKAYALSSGASIIEGPGFTGNNL 540
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DB 541 LFLKESNSIAKFKVTLNSAALLQRYRIRYASTTNLRFVQNSNDFLVIYINKTMNK 600
QY 601 DDLLTYQTFDLATTSNMGFGSKNELIIGAESFVSNKEIYIDKIEFIPVOL 652
DB 601 DDLLTYQTFDLATTSNMGFGSKNELIIGAESFVSNKEIYIDKIEFIPVOL 652

RESULT 4
US-08-993-722A-111
Sequence 111, Application US/08993722A
Patent No. 6060594
GENERAL INFORMATION:
APPLICANT: English, Leigh H.
APPLICANT: Bruesock, Susan M.
APPLICANT: Malvar, Thomas M.
APPLICANT: Bryson, James W.
APPLICANT: Kulesza, Caroline A.
APPLICANT: Walters, Frederick S.
APPLICANT: Slatin, Stephen L.
APPLICANT: Von Tersch, Michael A.
APPLICANT: Romano, Charles
TITLE OF INVENTION: NUCLEIC ACID SEGMENTS ENCODING MODIFIED
COLEOPTERAN-TOXIC CRYSTAL PROTEINS
NUMBER OF SEQUENCES: 113
CORRESPONDENCE ADDRESS:
ADDRESSEE: Arnold, White & Durkee
STREET: P.O. Box 4433
CITY: Houston

STATE: Texas
COUNTRY: USA
ZIP: 77210
COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0, Version #1.30
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/993, 722A
FILING DATE: 18-DEC-1997
CLASSIFICATION: 435
ATTORNEY/AGENT INFORMATION:
NAME: Kitchell, Barbara S.
REGISTRATION NUMBER: 33,928
REFERENCE/DOCKET NUMBER: MECO:149
TELECOMMUNICATION INFORMATION:
TELEPHONE: 512/418-3106
TELEFAX: 512/474-7577
INFORMATION FOR SEQ ID NO: 111:
SEQUENCE CHARACTERISTICS:
LENGTH: 652 amino acids
TYPE: amino acid
STRANDEDNESS:
TOPOLOGY: linear
US-08-993-722A-111
Query Match 100.0%; Score 3406; DB 3; Length 652;
Best Local Similarity 100.0%; Pred. No. 6e-287;
Matches 652; Conservative 0; Mismatches 0; Indels 0; Gaps 0;
QY 1 MNPNNRSEHDTIKVTPNSELOTHNQYPLADPNSTLEELNYKEFLRMTEDSSTVELDNS 60
DB 1 MNPNNRSEHDTIKVTPNSELOTHNQYPLADPNSTLEELNYKEFLRMTEDSSTVELDNS 60
QY 61 TVKDAVGTGIVGVQILGVVGVPPFAGALTSPYQSFNTIWPSPDADPKAFMAQVEVLIDK 120
DB 61 TVKDAVGTGIVGVQILGVVGVPPFAGALTSPYQSFNTIWPSPDADPKAFMAQVEVLIDK 120
QY 121 KIEEYAKSKALAELOGLQNNFEDYVNALNSWKKTPLSLRSKRSQDRIRLELFSQAESHPN 180
DB 121 KIEEYAKSKALAELOGLQNNFEDYVNALNSWKKTPLSLRSKRSQDRIRLELFSQAESHPN 180
QY 181 SMPFSAVSKFEVLFLPTYAQAANTHLLKDAQVFGEEGYSSEDAEFYHROLKLTQOY 240
DB 181 SMPFSAVSKFEVLFLPTYAQAANTHLLKDAQVFGEEGYSSEDAEFYHROLKLTQOY 240
QY 241 TDHCVNWNVGLNGSLRGSTYDAWKFNRRREMTLTVDLIVLFPFYDIRLSKGVKTEL 300
DB 241 TDHCVNWNVGLNGSLRGSTYDAWKFNRRREMTLTVDLIVLFPFYDIRLSKGVKTEL 300
QY 301 TRDIFTDPIFSLNTLOEYGPFTLSIENSIRKPHLPDYLOGIEFHTRLQPGYFGKDSFNYW 360
DB 301 TRDIFTDPIFSLNTLOEYGPFTLSIENSIRKPHLPDYLOGIEFHTRLQPGYFGKDSFNYW 360
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DB 361 SGNVETRPSIGSSKTTITSPYGDKSTPEVKLSFDGQKVYRTIANTDVAAMPNGKVYLG 420
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DB 421 VTKVDFSYDDQKNETSTQTYDSKRNNGHVSQAQSDIDLPPTTDEPLEKAYSHQLNAYE 480
QY 481 CFLMQDRRGTTIPFFTWTHRSVDFNTIDAEKTIQLPVVKAYALSSGASIIEGPGFTGNNL 540
DB 481 CFLMQDRRGTTIPFFTWTHRSVDFNTIDAEKTIQLPVVKAYALSSGASIIEGPGFTGNNL 540
QY 541 LFLKESNSIAKFKVTLNSAALLQRYRIRYASTTNLRFVQNSNDFLVIYINKTMNK 600
DB 541 LFLKESNSIAKFKVTLNSAALLQRYRIRYASTTNLRFVQNSNDFLVIYINKTMNK 600
QY 601 DDLLTYQTFDLATTSNMGFGSKNELIIGAESFVSNKEIYIDKIEFIPVOL 652
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Db 601 DDDLTYQTFDLATTSNMGFSGDKNELIIIGAESFVSNEKIYIDKIEFIPVOL 652

RESULT 5

US-08-993-170A-98
; Sequence 98, Application US/08993170A
; Patent No. 6063597
; GENERAL INFORMATION:
; APPLICANT: English, Leigh H.
; APPLICANT: Brussock, Susan M.
; APPLICANT: Malvar, Thomas W.
; APPLICANT: Bryson, James W.
; APPLICANT: Kulesza, Caroline A.
; APPLICANT: Walters, Frederick S.
; APPLICANT: Slatin, Stephen L.
; APPLICANT: Von Tersch, Michael A.
; TITLE OF INVENTION: POLYPEPTIDE COMPOSITIONS TOXIC TO
; TITLE OF INVENTION: COLEOPTERAN INSECTS
; NUMBER OF SEQUENCES: 113
; CORRESPONDENCE ADDRESS:
; ADDRESSEE: Arnold, White & Durkee
; STREET: P. O. Box 4433
; CITY: Houston
; STATE: Texas
; COUNTRY: USA
; ZIP: 77210
; COMPUTER READABLE FORM:
; MEDIUM TYPE: Floppy disk
; COMPUTER: IBM PC compatible
; OPERATING SYSTEM: PC-DOS/MS-DOS
; SOFTWARE: Patent In Release #1.0, Version #1.30
; CURRENT APPLICATION DATA:
; APPLICATION NUMBER: US/08/993,170A
; FILING DATE: 18-DEC-1997
; CLASSIFICATION: 424
; ATTORNEY/AGENT INFORMATION:
; NAME: Kitchell, Barbara S.
; REGISTRATION NUMBER: 33,928
; REFERENCE/DOCKET NUMBER: MECO:002
; TELEPHONE: 512/418-3000
; TELEFAX: 512/474-7577
; INFORMATION FOR SEQ ID NO: 98:
; SEQUENCE CHARACTERISTICS:
; LENGTH: 652 amino acids
; TYPE: amino acid
; TOPOLOGY: linear
; MOLECULE TYPE: protein
US-08-993-170A-98

Query Match 100.0%; Score 3406; DB 3; Length 652;
Best Local Similarity 100.0%; Pred. No. 6e-287;
Matches 652; Conservative 0; Mismatches 0; Indels 0; Gaps 0;
Qy 1 MNPNNRSEHDTIKVTNSELQTNHNOYPLADNPNSTLEELNYKEFLRMTESSSTEVLNLS 60
Db 1 MNPNNRSEHDTIKVTNSELQTNHNOYPLADNPNSTLEELNYKEFLRMTESSSTEVLNLS 60
Qy 61 TVKDAVGTGISVVGQILGVGVFPFAGALTSFYQSPLNTIWPSDADPWKAFMAQVEVLIDK 120
Db 61 TVKDAVGTGISVVGQILGVGVFPFAGALTSFYQSPLNTIWPSDADPWKAFMAQVEVLIDK 120
Qy 121 KIEEYAKSKALAEQLQNNFEDYVNALNSWKKTPLSLRSKRSQDRIRLEFSAQESHFRN 180
Db 121 KIEEYAKSKALAEQLQNNFEDYVNALNSWKKTPLSLRSKRSQDRIRLEFSAQESHFRN 180
Qy 181 SMPFSAVSKFEVLFLPTYAAQANTHLLLLKDAQVFGEEGYSSDEVAEFYHRLKLTQY 240
Db 181 SMPFSAVSKFEVLFLPTYAAQANTHLLLLKDAQVFGEEGYSSDEVAEFYHRLKLTQY 240
Qy 241 TDHCVMYVNVGLNLRGSTDYDAWKNNFRFRREMTLVLDLIVLFPYDRLYKSGVKTEL 300
Db 241 TDHCVMYVNVGLNLRGSTDYDAWKNNFRFRREMTLVLDLIVLFPYDRLYKSGVKTEL 300

RESULT 6

US-08-993-170A-111
; Sequence 111, Application US/08993170A
; Patent No. 6063597
; GENERAL INFORMATION:
; APPLICANT: English, Leigh H.
; APPLICANT: Brussock, Susan M.
; APPLICANT: Malvar, Thomas W.
; APPLICANT: Bryson, James W.
; APPLICANT: Kulesza, Caroline A.
; APPLICANT: Walters, Frederick S.
; APPLICANT: Slatin, Stephen L.
; APPLICANT: Von Tersch, Michael A.
; TITLE OF INVENTION: POLYPEPTIDE COMPOSITIONS TOXIC TO
; TITLE OF INVENTION: COLEOPTERAN INSECTS
; NUMBER OF SEQUENCES: 113
; CORRESPONDENCE ADDRESS:
; ADDRESSEE: Arnold, White & Durkee
; STREET: P. O. Box 4433
; CITY: Houston
; STATE: Texas
; COUNTRY: USA
; ZIP: 77210
; COMPUTER READABLE FORM:
; MEDIUM TYPE: Floppy disk
; COMPUTER: IBM PC compatible
; OPERATING SYSTEM: PC-DOS/MS-DOS
; SOFTWARE: Patent In Release #1.0, Version #1.30
; CURRENT APPLICATION DATA:
; APPLICATION NUMBER: US/08/993,170A
; FILING DATE: 18-DEC-1997
; CLASSIFICATION: 424
; ATTORNEY/AGENT INFORMATION:
; NAME: Kitchell, Barbara S.
; REGISTRATION NUMBER: 33,928
; REFERENCE/DOCKET NUMBER: MECO:002
; TELECOMMUNICATION INFORMATION:
; TELEPHONE: 512/418-3000
; TELEFAX: 512/474-7577
; INFORMATION FOR SEQ ID NO: 111:
; SEQUENCE CHARACTERISTICS:
; LENGTH: 652 amino acids
; TYPE: amino acid
; STRANDEDNESS:
; TOPOLOGY: linear
US-08-993-170A-111

Qy 301 TRDIFTDPIFSLNTLOEYGTPTFLSIENSIRKPHLFDYLOGIEPHTRLOPGYFGKDSFNYW 360
Db 301 TRDIFTDPIFSLNTLOEYGTPTFLSIENSIRKPHLFDYLOGIEPHTRLOPGYFGKDSFNYW 360
Qy 361 SGNVETRPSIGSSKITITSPPFYGDKSTPEVQKLSFDGQKVYRTIANTDVAAMPNGKYVLG 420
Db 361 SGNVETRPSIGSSKITITSPPFYGDKSTPEVQKLSFDGQKVYRTIANTDVAAMPNGKYVLG 420
Qy 421 VTKVDFSQYDDQKNETSTQTYDSKRNGHVSQAQSDIDQLPPETDDEPLEKAYSHQLNYAE 480
Db 421 VTKVDFSQYDDQKNETSTQTYDSKRNGHVSQAQSDIDQLPPETDDEPLEKAYSHQLNYAE 480
Qy 481 CFLMQDRRGRTIPFTTWTTHRSVDFPNTIDAETITQLPVKAYALSSGASIIIEGFGFTGGNL 540
Db 481 CFLMQDRRGRTIPFTTWTTHRSVDFPNTIDAETITQLPVKAYALSSGASIIIEGFGFTGGNL 540
Qy 541 LFLKSSNSIAKPKVTLSAALLQRYVRIRYASTTNLRLFVQNSNNDPLVIYINKTMNK 600
Db 541 LFLKSSNSIAKPKVTLSAALLQRYVRIRYASTTNLRLFVQNSNNDPLVIYINKTMNK 600
Qy 601 DDDLTYQTFDLATTSNMGFSGDKNELIIIGAESFVSNEKIYIDKIEFIPVOL 652
Db 601 DDDLTYQTFDLATTSNMGFSGDKNELIIIGAESFVSNEKIYIDKIEFIPVOL 652

Query Match 100.0%; Score 3406; DB 3; Length 652;
Best Local Similarity 100.0%; Pred. No. 6e-287;
Matches 652; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 MNPNNRSEHDTIKVTPNSELOTHNOYPLADNPSTLEELNYKEFLRMTESSSTEVLDS 60
DB 1 MNPNNRSEHDTIKVTPNSELOTHNOYPLADNPSTLEELNYKEFLRMTESSSTEVLDS 60

QY 61 TVKDAVGTGISVVGQILGVGVPFAGALTSFYQSFLNTIWPSDADPWKAFMAQVEVLIDK 120
DB 61 TVKDAVGTGISVVGQILGVGVPFAGALTSFYQSFLNTIWPSDADPWKAFMAQVEVLIDK 120

QY 121 KIEEYAKSALAELQGLQNNFEDYVNALNSWKKTPLSLRSKRSQDRIRLELSQAESHFRN 180
DB 121 KIEEYAKSALAELQGLQNNFEDYVNALNSWKKTPLSLRSKRSQDRIRLELSQAESHFRN 180

QY 181 SMPFAVSKFEVLFLPTTAAQANTHLLKDAQVGEWGYSSDVAEFYHRLKLTQOY 240
DB 181 SMPFAVSKFEVLFLPTTAAQANTHLLKDAQVGEWGYSSDVAEFYHRLKLTQOY 240

QY 241 TDHCVNWNVGLNGLRGSTDYDAWKFNFRFRREMTLTVLDLIIVLFPFYDIRLYSGVKTEL 300
DB 241 TDHCVNWNVGLNGLRGSTDYDAWKFNFRFRREMTLTVLDLIIVLFPFYDIRLYSGVKTEL 300

QY 301 TRDIFTDPIFSLNTLOEYGPFTLSIENSIRKPHLFDYLOGIEFHTRLOPGYFGKDSFNW 360
DB 301 TRDIFTDPIFSLNTLOEYGPFTLSIENSIRKPHLFDYLOGIEFHTRLOPGYFGKDSFNW 360

QY 361 SGNVYETRPSIGSSKTIITSPFYGDKSTEPVOKLSFDGOKVYRTIANTDVAAPNGKVYLG 420
DB 361 SGNVYETRPSIGSSKTIITSPFYGDKSTEPVOKLSFDGOKVYRTIANTDVAAPNGKVYLG 420

QY 421 VTKVDFSOYDDQKNETSTQYDSKRNGHVSAQDSIDQLPPTTDEPLEKAYSHQNLV 480
DB 421 VTKVDFSOYDDQKNETSTQYDSKRNGHVSAQDSIDQLPPTTDEPLEKAYSHQNLV 480

QY 481 CFLMDRRGTIPFFTWTHRSVDFPNTIDAEKITQLPVVKAYALSSGASIIIEGPGFTGNL 540
DB 481 CFLMDRRGTIPFFTWTHRSVDFPNTIDAEKITQLPVVKAYALSSGASIIIEGPGFTGNL 540

QY 541 LFLKSSNSIAKFKVTLNSAALLQRYRVRIRYASVTNLRFLVQNSNNDFLVIYINKTMK 600
DB 541 LFLKSSNSIAKFKVTLNSAALLQRYRVRIRYASVTNLRFLVQNSNNDFLVIYINKTMK 600

QY 601 DDLTYQTDFLATNSNMFGSGDKNELIIGAESFVSNKIIYIDKIEFIPVQL 652
DB 601 DDLTYQTDFLATNSNMFGSGDKNELIIGAESFVSNKIIYIDKIEFIPVQL 652

RESULT 7

US-08-993-775B-98
Sequence 98, Application US/08993775B
Patent No. 6077824
GENERAL INFORMATION:
APPLICANT: English, Leigh H.
APPLICANT: Brussock, Susan M.
APPLICANT: Malvar, Thomas M.
APPLICANT: Bryson, James W.
APPLICANT: Kulesza, Caroline A.
APPLICANT: Walters, Frederick S.
APPLICANT: Slatin, Stephen L.
APPLICANT: von Tersch, Michael A.
TITLE OF INVENTION: METHODS FOR IMPROVING THE ACTIVITY OF
NUMBER OF INVENTION: DELTA-ENDOTOXINS AGAINST INSECT PESTS
NUMBER OF SEQUENCES: 113
CORRESPONDENCE ADDRESS:
ADDRESSEE: Arnold, White & Durkee
STREET: P. O. Box 4433
CITY: Houston
STATE: Texas
COUNTRY: USA
ZIP: 77210
COMPUTER READABLE FORM:

MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: PatentIn Release #1.0, Version #1.30
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/993,775B
FILING DATE: 18-DEC-1997
CLASSIFICATION: 514
ATTORNEY/AGENT INFORMATION:
NAME: Kitchell, Barbara S.
REGISTRATION NUMBER: 33,928
REFERENCE/DOCKET NUMBER: MECO:150
TELECOMMUNICATION INFORMATION:
TELEPHONE: 512/418-3000
TELEFAX: 512/474-7577
INFORMATION FOR SEQ ID NO: 98:
SEQUENCE CHARACTERISTICS:
LENGTH: 652 amino acids
TYPE: amino acid
TOPOLOGY: linear
MOLECULE TYPE: protein
US-08-993-775B-98

Query Match 100.0%; Score 3406; DB 3; Length 652;
Best Local Similarity 100.0%; Pred. No. 6e-287;
Matches 652; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 MNPNNRSEHDTIKVTPNSELOTHNOYPLADNPSTLEELNYKEFLRMTESSSTEVLDS 60
DB 1 MNPNNRSEHDTIKVTPNSELOTHNOYPLADNPSTLEELNYKEFLRMTESSSTEVLDS 60

QY 61 TVKDAVGTGISVVGQILGVGVPFAGALTSFYQSFLNTIWPSDADPWKAFMAQVEVLIDK 120
DB 61 TVKDAVGTGISVVGQILGVGVPFAGALTSFYQSFLNTIWPSDADPWKAFMAQVEVLIDK 120

QY 121 KIEEYAKSALAELQGLQNNFEDYVNALNSWKKTPLSLRSKRSQDRIRLELSQAESHFRN 180
DB 121 KIEEYAKSALAELQGLQNNFEDYVNALNSWKKTPLSLRSKRSQDRIRLELSQAESHFRN 180

QY 181 SMPFAVSKFEVLFLPTTAAQANTHLLKDAQVGEWGYSSDVAEFYHRLKLTQOY 240
DB 181 SMPFAVSKFEVLFLPTTAAQANTHLLKDAQVGEWGYSSDVAEFYHRLKLTQOY 240

QY 241 TDHCVNWNVGLNGLRGSTDYDAWKFNFRFRREMTLTVLDLIIVLFPFYDIRLYSGVKTEL 300
DB 241 TDHCVNWNVGLNGLRGSTDYDAWKFNFRFRREMTLTVLDLIIVLFPFYDIRLYSGVKTEL 300

QY 301 TRDIFTDPIFSLNTLOEYGPFTLSIENSIRKPHLFDYLOGIEFHTRLOPGYFGKDSFNW 360
DB 301 TRDIFTDPIFSLNTLOEYGPFTLSIENSIRKPHLFDYLOGIEFHTRLOPGYFGKDSFNW 360

QY 361 SGNVYETRPSIGSSKTIITSPFYGDKSTEPVOKLSFDGOKVYRTIANTDVAAPNGKVYLG 420
DB 361 SGNVYETRPSIGSSKTIITSPFYGDKSTEPVOKLSFDGOKVYRTIANTDVAAPNGKVYLG 420

QY 421 VTKVDFSOYDDQKNETSTQYDSKRNGHVSAQDSIDQLPPTTDEPLEKAYSHQNLV 480
DB 421 VTKVDFSOYDDQKNETSTQYDSKRNGHVSAQDSIDQLPPTTDEPLEKAYSHQNLV 480

QY 481 CFLMDRRGTIPFFTWTHRSVDFPNTIDAEKITQLPVVKAYALSSGASIIIEGPGFTGNL 540
DB 481 CFLMDRRGTIPFFTWTHRSVDFPNTIDAEKITQLPVVKAYALSSGASIIIEGPGFTGNL 540

QY 541 LFLKSSNSIAKFKVTLNSAALLQRYRVRIRYASVTNLRFLVQNSNNDFLVIYINKTMK 600
DB 541 LFLKSSNSIAKFKVTLNSAALLQRYRVRIRYASVTNLRFLVQNSNNDFLVIYINKTMK 600

QY 601 DDLTYQTDFLATNSNMFGSGDKNELIIGAESFVSNKIIYIDKIEFIPVQL 652
DB 601 DDLTYQTDFLATNSNMFGSGDKNELIIGAESFVSNKIIYIDKIEFIPVQL 652

RESULT 8

US-08-993-775B-111
 ; Sequence 111, Application US/08993775B
 ; Patent No. 6077824
 ; GENERAL INFORMATION:
 ; APPLICANT: English, Leigh H.
 ; APPLICANT: Bruesock, Susan M.
 ; APPLICANT: Malvar, Thomas M.
 ; APPLICANT: Bryson, James W.
 ; APPLICANT: Kulesza, Caroline A.
 ; APPLICANT: Walters, Frederick S.
 ; APPLICANT: Slatin, Stephen L.
 ; APPLICANT: Von Tersch, Michael A.
 ; TITLE OF INVENTION: METHODS FOR IMPROVING THE ACTIVITY OF
 ; DELTA-ENDOTOXINS AGAINST INSECT PESTS
 ; NUMBER OF SEQUENCES: 113
 ; CORRESPONDENCE ADDRESS:
 ; ADDRESSEE: Arnold, White & Durkee
 ; STREET: P.O. Box 4433
 ; CITY: Houston
 ; STATE: Texas
 ; COUNTRY: USA
 ; ZIP: 77210
 ; COMPUTER READABLE FORM:
 ; MEDIUM TYPE: Floppy disk
 ; COMPUTER: IBM PC compatible
 ; OPERATING SYSTEM: PC-DOS/MS-DOS
 ; SOFTWARE: Patent In Release #1.0, Version #1.30
 ; CURRENT APPLICATION DATA:
 ; APPLICATION NUMBER: US/08/993, 775B
 ; FILING DATE: 18-DEC-1997
 ; CLASSIFICATION: 514
 ; ATTORNEY/AGENT INFORMATION:
 ; NAME: Kitchell, Barbara S.
 ; REGISTRATION NUMBER: 33,928
 ; REFERENCE/DOCKET NUMBER: MECO:150
 ; TELEPHONE: 512/418-3000
 ; TELEFAX: 512/474-7577
 ; INFORMATION FOR SEQ ID NO: 111:
 ; SEQUENCE CHARACTERISTICS:
 ; LENGTH: 652 amino acids
 ; TYPE: amino acid
 ; STRANDEDNESS:
 ; TOPOLOGY: linear
 ; US-08-993-775B-111

Query Match 100.0%; Score 3406; DB 3; Length 652;
 Best Local Similarity 100.0%; Pred. No. 6e-287;
 Matches 652; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy	1	MNPNNRSEHDTIKVTPNSELOTHNQYPLADNPNSTLEELNYKEFLRMWTESSDEVLDNS	60
Db	1	MNPNNRSEHDTIKVTPNSELOTHNQYPLADNPNSTLEELNYKEFLRMWTESSDEVLDNS	60
Qy	61	TVKDAVGTGISVVGQILGVGVFPFAGALTSFYQSFLNTIWPSDADPWKAFMAQVEVLIDK	120
Db	61	TVKDAVGTGISVVGQILGVGVFPFAGALTSFYQSFLNTIWPSDADPWKAFMAQVEVLIDK	120
Qy	121	KIEEYAKSALAELOQLNPNFEDYNALNSWKKTPLSLRSKRSQDRIRRELFSQAESHFRN	180
Db	121	KIEEYAKSALAELOQLNPNFEDYNALNSWKKTPLSLRSKRSQDRIRRELFSQAESHFRN	180
Qy	181	SMPSFAVSKEVFLFLPTYAAQANTHLLKDAQVFGEEWGYSSDEVVAEFYHROLKLTQQY	240
Db	181	SMPSFAVSKEVFLFLPTYAAQANTHLLKDAQVFGEEWGYSSDEVVAEFYHROLKLTQQY	240
Qy	241	TDHCVMNMYNGLNGLRGSTYDAWVKFNRRREMTLTVLDLIVLFPFYDIRLYSGVKTEL	300
Db	241	TDHCVMNMYNGLNGLRGSTYDAWVKFNRRREMTLTVLDLIVLFPFYDIRLYSGVKTEL	300
Qy	301	TRDIFTDPIFSLNTLOEYGTFLSIENSIRKPHLFDYLOQIEFHTRLQPGYFGKDSFNW	360
Db	301	TRDIFTDPIFSLNTLOEYGTFLSIENSIRKPHLFDYLOQIEFHTRLQPGYFGKDSFNW	360
Qy	361	SGNYVETRSIGSSKTTITSPFYGDKSTPEVKLSFDGQKVYRTIANTDVAWPNKGKYL	420
Db	361	SGNYVETRSIGSSKTTITSPFYGDKSTPEVKLSFDGQKVYRTIANTDVAWPNKGKYL	420

Qy 361 SGNYVETRSIGSSKTTITSPFYGDKSTPEVKLSFDGQKVYRTIANTDVAWPNKGKYL 420
 Db 361 SGNYVETRSIGSSKTTITSPFYGDKSTPEVKLSFDGQKVYRTIANTDVAWPNKGKYL 420
 Qy 421 VTKVDFSQYDDQKNETSTQYDSKRNNGHVSAQDSIDQLPPETTTDEPLEKAYSHQLN 480
 Db 421 VTKVDFSQYDDQKNETSTQYDSKRNNGHVSAQDSIDQLPPETTTDEPLEKAYSHQLN 480
 Qy 481 CFLMDRRGTIPFTWTHRSVDFNTDAEKITQLPVKAYALSSGASIIIEGPGFTG 540
 Db 481 CFLMDRRGTIPFTWTHRSVDFNTDAEKITQLPVKAYALSSGASIIIEGPGFTG 540
 Qy 541 LFLKESNSIAKPKVTLNSAALLQRYRIRYASTTNLRLFVQNSNNDFLVIVINKTM 600
 Db 541 LFLKESNSIAKPKVTLNSAALLQRYRIRYASTTNLRLFVQNSNNDFLVIVINKTM 600
 Qy 601 DDLTYQTFLATTNSNMGFSGDKNELIIGAESFVSNKIYIDKIEFIPVOL 652
 Db 601 DDLTYQTFLATTNSNMGFSGDKNELIIGAESFVSNKIYIDKIEFIPVOL 652

RESULT 9
 US-09-377-466B-2
 ; Sequence 2, Application US/09377466B
 ; Patent No. 6501009
 ; GENERAL INFORMATION:
 ; APPLICANT: Romano, Charles P.
 ; TITLE OF INVENTION: Improved Expression of Cry3Bb Insecticidal Protein in Plants
 ; FILE REFERENCE: 38-21(15304) Cry3Bb Improved Exp. Corn
 ; CURRENT APPLICATION NUMBER: US/09/377,466B
 ; CURRENT FILING DATE: 1999-08-19
 ; NUMBER OF SEQ ID NOS: 43
 ; SOFTWARE: Patent In Ver. 2.0
 ; SEQ ID NO 2
 ; LENGTH: 652
 ; TYPE: PRT
 ; ORGANISM: Bacillus thuringiensis
 ; US-09-377-466B-2

Query Match 100.0%; Score 3406; DB 4; Length 652;
 Best Local Similarity 100.0%; Pred. No. 6e-287;
 Matches 652; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy	1	MNPNNRSEHDTIKVTPNSELOTHNQYPLADNPNSTLEELNYKEFLRMWTESSDEVLDNS	60
Db	1	MNPNNRSEHDTIKVTPNSELOTHNQYPLADNPNSTLEELNYKEFLRMWTESSDEVLDNS	60
Qy	61	TVKDAVGTGISVVGQILGVGVFPFAGALTSFYQSFLNTIWPSDADPWKAFMAQVEVLIDK	120
Db	61	TVKDAVGTGISVVGQILGVGVFPFAGALTSFYQSFLNTIWPSDADPWKAFMAQVEVLIDK	120
Qy	121	KIEEYAKSALAELOQLNPNFEDYNALNSWKKTPLSLRSKRSQDRIRRELFSQAESHFRN	180
Db	121	KIEEYAKSALAELOQLNPNFEDYNALNSWKKTPLSLRSKRSQDRIRRELFSQAESHFRN	180
Qy	181	SMPSFAVSKEVFLFLPTYAAQANTHLLKDAQVFGEEWGYSSDEVVAEFYHROLKLTQQY	240
Db	181	SMPSFAVSKEVFLFLPTYAAQANTHLLKDAQVFGEEWGYSSDEVVAEFYHROLKLTQQY	240
Qy	241	TDHCVMNMYNGLNGLRGSTYDAWVKFNRRREMTLTVLDLIVLFPFYDIRLYSGVKTEL	300
Db	241	TDHCVMNMYNGLNGLRGSTYDAWVKFNRRREMTLTVLDLIVLFPFYDIRLYSGVKTEL	300
Qy	301	TRDIFTDPIFSLNTLOEYGTFLSIENSIRKPHLFDYLOQIEFHTRLQPGYFGKDSFNW	360
Db	301	TRDIFTDPIFSLNTLOEYGTFLSIENSIRKPHLFDYLOQIEFHTRLQPGYFGKDSFNW	360
Qy	361	SGNYVETRSIGSSKTTITSPFYGDKSTPEVKLSFDGQKVYRTIANTDVAWPNKGKYL	420
Db	361	SGNYVETRSIGSSKTTITSPFYGDKSTPEVKLSFDGQKVYRTIANTDVAWPNKGKYL	420
Qy	421	VTKVDFSQYDDQKNETSTQYDSKRNNGHVSAQDSIDQLPPETTTDEPLEKAYSHQLN 480	

APPLICATION NUMBER: US/09/427,770
FILING DATE: 18-DEC-1997
CLASSIFICATION: US 08/993,722
PRIOR APPLICATION DATA: US 08/993,722
FILING DATE: 18-DEC-1997
ATTORNEY/AGENT INFORMATION:
NAME: Kitchell, Barbara S.
REGISTRATION NUMBER: 33,928
REFERENCE/DOCKET NUMBER: MECO:149
TELECOMMUNICATION INFORMATION:
TELEPHONE: 512/418-3106
TELEFAX: 512/474-7577
INFORMATION FOR SEQ ID NO: 111:
SEQUENCE CHARACTERISTICS:
LENGTH: 652 amino acids
TYPE: amino acid
STRANDEDNESS: linear
TOPOLOGY: linear
US-09-427-770-111

Query Match 100.0%; Score 3406; DB 4; Length 652;
Best Local Similarity 100.0%; Pred. No. 6e-287;
Matches 652; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 MNPNNRSEHDTIKVTPNSELQTNHNOYPLADNPSTLEELNYKEFLRMTEDSDSTEVLNDS 60
DB 1 MNPNNRSEHDTIKVTPNSELQTNHNOYPLADNPSTLEELNYKEFLRMTEDSDSTEVLNDS 60

QY 61 TVKDVGTVGIVVGVQILGVVGVFPAGALTSFYQSFNTIWPSDADPWKAFMAQVEVLIDK 120
DB 61 TVKDVGTVGIVVGVQILGVVGVFPAGALTSFYQSFNTIWPSDADPWKAFMAQVEVLIDK 120

QY 121 KIEEYAKSKALAELOGLQNNFEDYVNALNSWKKTPLSLRSKRSQDRIREFSQAESHFNR 180
DB 121 KIEEYAKSKALAELOGLQNNFEDYVNALNSWKKTPLSLRSKRSQDRIREFSQAESHFNR 180

QY 181 SMPFSAVSKFEVLFLPTVAQAANTHLLKDAQVGEWGYSSDVAEFYHROLKLTQY 240
DB 181 SMPFSAVSKFEVLFLPTVAQAANTHLLKDAQVGEWGYSSDVAEFYHROLKLTQY 240

QY 241 TDHCNVNNGVGLRGSTYDAWVKFNRRREMTLVLDLIVLPFYDIRLYSKGVKTEL 300
DB 241 TDHCNVNNGVGLRGSTYDAWVKFNRRREMTLVLDLIVLPFYDIRLYSKGVKTEL 300

QY 301 TRDIFTDPIFSLNTLQEGYPTFLSIENSRKPHLFDYLOGIEFHTRLQPGYFGKDSFNW 360
DB 301 TRDIFTDPIFSLNTLQEGYPTFLSIENSRKPHLFDYLOGIEFHTRLQPGYFGKDSFNW 360

QY 361 SGNYVETRPSIGSSKTIITSPFYGDKSTPEVQKLSFDGQKVYRTIANTDVAAMPNGKVYLG 420
DB 361 SGNYVETRPSIGSSKTIITSPFYGDKSTPEVQKLSFDGQKVYRTIANTDVAAMPNGKVYLG 420

QY 421 VTKVDFSDQDDQNETSTQYDSKRNGHVSAQDSIDQLPPTTDBPLEKAYSHQNLAYE 480
DB 421 VTKVDFSDQDDQNETSTQYDSKRNGHVSAQDSIDQLPPTTDBPLEKAYSHQNLAYE 480

QY 481 CFLMQDRRTGIPFTWTHRSVDFNTIDAEKITQLPVVKAYALSSGASIEGPGFTGGNL 540
DB 481 CFLMQDRRTGIPFTWTHRSVDFNTIDAEKITQLPVVKAYALSSGASIEGPGFTGGNL 540

QY 541 LFLKSSNSIAKPKVTLNSAALLQRYRIRYASTTNLRLFVQNSNNDFLVIYINKTMNK 600
DB 541 LFLKSSNSIAKPKVTLNSAALLQRYRIRYASTTNLRLFVQNSNNDFLVIYINKTMNK 600

QY 601 DDLTYQTFLATNSMGFSGDKNELIIGAESFVSNKEIYIDKIFIPVOL 652
DB 601 DDLTYQTFLATNSMGFSGDKNELIIGAESFVSNKEIYIDKIFIPVOL 652

RESULT 12
US-09-427-769-98
; Sequence 98, Application US/09427769

Patent No. 6642030
GENERAL INFORMATION:
APPLICANT: English, Leigh H.
APPLICANT: Brussock, Susan M.
APPLICANT: Malvar, Thomas M.
APPLICANT: Bryson, James W.
APPLICANT: Kulesza, Caroline A.
APPLICANT: Walters, Frederick S.
APPLICANT: Slatin, Stephen L.
APPLICANT: Von Tersch, Michael A.
APPLICANT: Romano, Charles
TITLE OF INVENTION: NUCLEIC ACID SEGMENTS ENCODING MODIFIED
TITLE OF INVENTION: COLEOPTERAN-TOXIC CRYSTAL PROTEINS
NUMBER OF SEQUENCES: 113
CORRESPONDENCE ADDRESS:
ADDRESSEE: Arnold, White & Durkee
STREET: P.O. Box 4433
CITY: Houston
STATE: Texas
COUNTRY: USA
ZIP: 77210
COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patent In Release #1.0, Version #1.30
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/09/427,769
FILING DATE:
CLASSIFICATION:
PRIOR APPLICATION DATA:
APPLICATION NUMBER: 08/993,722
FILING DATE:
ATTORNEY/AGENT INFORMATION:
NAME: Kitchell, Barbara S.
REGISTRATION NUMBER: 33,928
REFERENCE/DOCKET NUMBER: MECO:149
TELECOMMUNICATION INFORMATION:
TELEPHONE: 512/418-3106
TELEFAX: 512/474-7577
INFORMATION FOR SEQ ID NO: 98:
SEQUENCE CHARACTERISTICS:
LENGTH: 652 amino acids
TYPE: amino acid
TOPOLOGY: linear
MOLECULE TYPE: protein
US-09-427-769-98

Query Match 100.0%; Score 3406; DB 4; Length 652;
Best Local Similarity 100.0%; Pred. No. 6e-287;
Matches 652; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 MNPNNRSEHDTIKVTPNSELQTNHNOYPLADNPSTLEELNYKEFLRMTEDSDSTEVLNDS 60
DB 1 MNPNNRSEHDTIKVTPNSELQTNHNOYPLADNPSTLEELNYKEFLRMTEDSDSTEVLNDS 60

QY 61 TVKDVGTVGIVVGVQILGVVGVFPAGALTSFYQSFNTIWPSDADPWKAFMAQVEVLIDK 120
DB 61 TVKDVGTVGIVVGVQILGVVGVFPAGALTSFYQSFNTIWPSDADPWKAFMAQVEVLIDK 120

QY 121 KIEEYAKSKALAELOGLQNNFEDYVNALNSWKKTPLSLRSKRSQDRIREFSQAESHFNR 180
DB 121 KIEEYAKSKALAELOGLQNNFEDYVNALNSWKKTPLSLRSKRSQDRIREFSQAESHFNR 180

QY 181 SMPFSAVSKFEVLFLPTVAQAANTHLLKDAQVGEWGYSSDVAEFYHROLKLTQY 240
DB 181 SMPFSAVSKFEVLFLPTVAQAANTHLLKDAQVGEWGYSSDVAEFYHROLKLTQY 240

QY 241 TDHCNVNNGVGLRGSTYDAWVKFNRRREMTLVLDLIVLPFYDIRLYSKGVKTEL 300
DB 241 TDHCNVNNGVGLRGSTYDAWVKFNRRREMTLVLDLIVLPFYDIRLYSKGVKTEL 300

QY 301 TRDIFTDPIFSLNTLQEGYPTFLSIENSRKPHLFDYLOGIEFHTRLQPGYFGKDSFNW 360

Db 301 TRDFTDPIFSLNTLQYEGPTFLSIENSRKPHLFDVLQGLIEFHTRLQPGYFGKDSFNW 360
Qy 361 SGNVETRPSIGSSKTIITSPYGDKSTPEVQKLSFDGQKVYRTIANTDVAAPNGKVYLG 420
Db 361 SGNVETRPSIGSSKTIITSPYGDKSTPEVQKLSFDGQKVYRTIANTDVAAPNGKVYLG 420
Qy 421 VTKVDFSOYDDQKNETSTQYDYSKRNNGHVSAQDSIDQLPETTTDEPLEKAYSHQLYAE 480
Db 421 VTKVDFSOYDDQKNETSTQYDYSKRNNGHVSAQDSIDQLPETTTDEPLEKAYSHQLYAE 480
Qy 481 CFLMDRRGTIPFTTWRHSVDFPNTIDAETITOLPVVKAYALSSGASIIIEGPGFTGNNL 540
Db 481 CFLMDRRGTIPFTTWRHSVDFPNTIDAETITOLPVVKAYALSSGASIIIEGPGFTGNNL 540
Qy 541 LFLKSSNSIAKFKVTLNSAALLQRYRIRYASTTNLRLFVQNSNNDFLVIYINKTMNK 600
Db 541 LFLKSSNSIAKFKVTLNSAALLQRYRIRYASTTNLRLFVQNSNNDFLVIYINKTMNK 600
Qy 601 DDLTYQTFDLATTNSNMFGSGDKNELIIGAESFVSNKEIYIDKIEFIPVOL 652
Db 601 DDLTYQTFDLATTNSNMFGSGDKNELIIGAESFVSNKEIYIDKIEFIPVOL 652

RESULT 13
US-09-427-769-111
; Sequence 111, Application US/09427769
; Patent No. 6642030
; GENERAL INFORMATION:
; APPLICANT: English, Leigh H.
; APPLICANT: Brussock, Susan M.
; APPLICANT: Malvar, Thomas M.
; APPLICANT: Bryson, James W.
; APPLICANT: Kulesza, Caroline A.
; APPLICANT: Walters, Frederick S.
; APPLICANT: Slatin, Stephen L.
; APPLICANT: Von Tersch, Michael A.
; APPLICANT: Romano, Charles
; TITLE OF INVENTION: NUCLEIC ACID SEGMENTS ENCODING MODIFIED
; TITLE OF INVENTION: COLEOPTERAN-TOXIC CRYSTAL PROTEINS
; NUMBER OF SEQUENCES: 113
; CORRESPONDENCE ADDRESS:
; ADDRESSEE: Arnold, White & Durkee
; STREET: P.O. Box 4433
; CITY: Houston
; STATE: Texas
; COUNTRY: USA
; ZIP: 77210
; COMPUTER READABLE FORM:
; MEDIUM TYPE: Floppy disk
; COMPUTER: IBM PC compatible
; OPERATING SYSTEM: PC-DOS/MS-DOS
; SOFTWARE: Patent In Release #1.0, Version #1.30
; CURRENT APPLICATION DATA:
; APPLICATION NUMBER: US/09/427,769
; FILING DATE:
; CLASSIFICATION:
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER: 08/993,722
; FILING DATE:
; ATTORNEY/AGENT INFORMATION:
; NAME: Kitchell, Barbara S.
; REGISTRATION NUMBER: 33,928
; REFERENCE/DOCKET NUMBER: MECO:149
; TELECOMMUNICATION INFORMATION:
; TELEPHONE: 512/418-3106
; TELEFAX: 512/474-7577
; INFORMATION FOR SEQ ID NO: 111:
; SEQUENCE CHARACTERISTICS:
; LENGTH: 652 amino acids
; TYPE: amino acid
; STRANDEDNESS:
; TOPOLOGY: linear

US-09-427-769-111

Query Match 100.0%; Score 3406; DB 4; Length 652;
Best Local Similarity 100.0%; Pred. No. 6e-287;
Matches 652; Conservative 0; Mismatches 0; Indels 0; Gaps 0;
Qy 1 MNPNNRSEHDTIKVTNPSELQTNHNOYPLADNPNSLTLEELNYKEFLRMTEDESSTEVLNLS 60
Db 1 MNPNNRSEHDTIKVTNPSELQTNHNOYPLADNPNSLTLEELNYKEFLRMTEDESSTEVLNLS 60
Qy 61 TVKDAVGTGISVVGQILGVVGPFFAGALTSFYOSFLNTIWPDSADPWKAFMAQVEVLIDK 120
Db 61 TVKDAVGTGISVVGQILGVVGPFFAGALTSFYOSFLNTIWPDSADPWKAFMAQVEVLIDK 120
Qy 121 KIEEYAKSKALAELOGLNNEFDYVNALNSWKKTPLSLRSKRSQDRIRLFSQAESHFN 180
Db 121 KIEEYAKSKALAELOGLNNEFDYVNALNSWKKTPLSLRSKRSQDRIRLFSQAESHFN 180
Qy 181 SMPSPAVSKPEVLFLPTYAQAANTHLLKDAQVFGEEWGYSSSEDAEVPYHRLKLTQOY 240
Db 181 SMPSPAVSKPEVLFLPTYAQAANTHLLKDAQVFGEEWGYSSSEDAEVPYHRLKLTQOY 240
Qy 241 TDHCVMNWNVGLNGLRGSTYDAWVKFNRRFRREMTLVLDLVLFPFYDRLYSKGVKTEL 300
Db 241 TDHCVMNWNVGLNGLRGSTYDAWVKFNRRFRREMTLVLDLVLFPFYDRLYSKGVKTEL 300
Qy 301 TRDFTDPIFSLNTLQYEGPTFLSIENSRKPHLFDVLQGLIEFHTRLQPGYFGKDSFNW 360
Db 301 TRDFTDPIFSLNTLQYEGPTFLSIENSRKPHLFDVLQGLIEFHTRLQPGYFGKDSFNW 360
Qy 361 SGNVETRPSIGSSKTIITSPYGDKSTPEVQKLSFDGQKVYRTIANTDVAAPNGKVYLG 420
Db 361 SGNVETRPSIGSSKTIITSPYGDKSTPEVQKLSFDGQKVYRTIANTDVAAPNGKVYLG 420
Qy 421 VTKVDFSOYDDQKNETSTQYDYSKRNNGHVSAQDSIDQLPETTTDEPLEKAYSHQLYAE 480
Db 421 VTKVDFSOYDDQKNETSTQYDYSKRNNGHVSAQDSIDQLPETTTDEPLEKAYSHQLYAE 480
Qy 481 CFLMDRRGTIPFTTWRHSVDFPNTIDAETITOLPVVKAYALSSGASIIIEGPGFTGNNL 540
Db 481 CFLMDRRGTIPFTTWRHSVDFPNTIDAETITOLPVVKAYALSSGASIIIEGPGFTGNNL 540
Qy 541 LFLKSSNSIAKFKVTLNSAALLQRYRIRYASTTNLRLFVQNSNNDFLVIYINKTMNK 600
Db 541 LFLKSSNSIAKFKVTLNSAALLQRYRIRYASTTNLRLFVQNSNNDFLVIYINKTMNK 600
Qy 601 DDLTYQTFDLATTNSNMFGSGDKNELIIGAESFVSNKEIYIDKIEFIPVOL 652
Db 601 DDLTYQTFDLATTNSNMFGSGDKNELIIGAESFVSNKEIYIDKIEFIPVOL 652

RESULT 14
5187091-2
; Patent No. 5187091
; APPLICANT: DONOVAN, WILLIAM P.; RUPAR, MARK J.; SLANEY,
; ANNETTE C.; JOHNSON, TIMOTHY B.
; TITLE OF INVENTION: BACILLUS THURINGIENSIS CRYIIIC GENE
; . ENCODING TOXIC TO COLEOPTERAN INSECTS
; NUMBER OF SEQUENCES: 2
; CURRENT APPLICATION DATA:
; APPLICATION NUMBER: US/07/496,568
; FILING DATE: 20-MAR-1990
; SEQ ID NO: 2:
; LENGTH: 652
5187091-2

Query Match 100.0%; Score 3406; DB 6; Length 652;
Best Local Similarity 100.0%; Pred. No. 6e-287;
Matches 652; Conservative 0; Mismatches 0; Indels 0; Gaps 0;
Qy 1 MNPNNRSEHDTIKVTNPSELQTNHNOYPLADNPNSLTLEELNYKEFLRMTEDESSTEVLNLS 60
Db 1 MNPNNRSEHDTIKVTNPSELQTNHNOYPLADNPNSLTLEELNYKEFLRMTEDESSTEVLNLS 60

QY 61 TVKDAVGTGIVVGVVPPFAGALTSFYQSFNTIWPSPADPWKAFMAQVEVLIDK 120
DB 61 TVKDAVGTGIVVGVVPPFAGALTSFYQSFNTIWPSPADPWKAFMAQVEVLIDK 120
QY 121 KIEEYAKSALAELOGLQNNFEDYVNALNSWKKTPLSLRSKRSQDRIELFQSAESHFRN 180
DB 121 KIEEYAKSALAELOGLQNNFEDYVNALNSWKKTPLSLRSKRSQDRIELFQSAESHFRN 180
QY 181 SMPSPAVSFEVLFLPTTAAQANTHLLLLKDAQVGEEMGYSSDVAEFYHRLKLTQOY 240
DB 181 SMPSPAVSFEVLFLPTTAAQANTHLLLLKDAQVGEEMGYSSDVAEFYHRLKLTQOY 240
QY 241 TDHCNVNNGVGLRGSTYDAWVKFNRRREMTLTVLDLIVLFPFYDIRLSKGVKTEL 300
DB 241 TDHCNVNNGVGLRGSTYDAWVKFNRRREMTLTVLDLIVLFPFYDIRLSKGVKTEL 300
QY 301 TRDIFTDPIFSLNTLOEYGTPLFSLIENSRKPHLFDYLGIFHTRLPQGYFGKDSFNW 360
DB 301 TRDIFTDPIFSLNTLOEYGTPLFSLIENSRKPHLFDYLGIFHTRLPQGYFGKDSFNW 360
QY 361 SGNVETREPSIGSSKTIITSPFYGDKSTEPVQKLSFDGQKVYRTIANTDVAAMPNGKVYLG 420
DB 361 SGNVETREPSIGSSKTIITSPFYGDKSTEPVQKLSFDGQKVYRTIANTDVAAMPNGKVYLG 420
QY 421 VTKVDFSOYDDQKNETSTQTYDSKRNGHVSAQDSIDQLPPETDDEPLEKAYSHQLNYAE 480
DB 421 VTKVDFSOYDDQKNETSTQTYDSKRNGHVSAQDSIDQLPPETDDEPLEKAYSHQLNYAE 480
QY 481 CFMDQRRGTIPFFTWTHRSVDFNTIDAOKITQLPVVKAYALSSGASIIIEGPGFTGGNL 540
DB 481 CFMDQRRGTIPFFTWTHRSVDFNTIDAOKITQLPVVKAYALSSGASIIIEGPGFTGGNL 540
QY 541 LFLKSSNSIAKFKVTLNSAALLQRYRVRIRYASTTNLRLFVQNSNNDFLVIYINKTMNK 600
DB 541 LFLKSSNSIAKFKVTLNSAALLQRYRVRIRYASTTNLRLFVQNSNNDFLVIYINKTMNK 600
QY 601 DDDLTQTQFDLATTNSNMFGSGDKNELIIGAESFVSNKIIYIDKIEFIPVOL 652
DB 601 DDDLTQTQFDLATTNSNMFGSGDKNELIIGAESFVSNKIIYIDKIEFIPVOL 652

RESULT 15
5187091-2
;PATENT NO. 5187091
;APPLICANT: DONOVAN, WILLIAM P.;RUPAR, MARK J.;SLANEY,
;ANNETTE C.;JOHNSON, TIMOTHY B.
; TITLE OF INVENTION: BACILLUS THURINGIENSIS CRYIIIC GENE
; . ENCODING TOXIC TO COLEOPTERAN INSECTS
; NUMBER OF SEQUENCES: 2
; CURRENT APPLICATION DATA:
; APPLICATION NUMBER: US/07/496,568
; FILING DATE: 20-MAR-1990
; SEQ ID NO:2:
; LENGTH: 652
5187091-2

Query Match 100.0%; Score 3406; DB 6; Length 652;
Best Local Similarity 100.0%; Pred. No. 66-287;
Matches 652; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 MNPNNRSEHDTIKVTPNSLQTNHNOYPLADNPNSLTLELNKKEFLRMTEDSSTEVLNDS 60
DB 1 MNPNNRSEHDTIKVTPNSLQTNHNOYPLADNPNSLTLELNKKEFLRMTEDSSTEVLNDS 60
QY 61 TVKDAVGTGIVVGVVPPFAGALTSFYQSFNTIWPSPADPWKAFMAQVEVLIDK 120
DB 61 TVKDAVGTGIVVGVVPPFAGALTSFYQSFNTIWPSPADPWKAFMAQVEVLIDK 120
QY 121 KIEEYAKSALAELOGLQNNFEDYVNALNSWKKTPLSLRSKRSQDRIELFQSAESHFRN 180
DB 121 KIEEYAKSALAELOGLQNNFEDYVNALNSWKKTPLSLRSKRSQDRIELFQSAESHFRN 180

QY 181 SMPSPAVSFEVLFLPTTAAQANTHLLLLKDAQVGEEMGYSSDVAEFYHRLKLTQOY 240
DB 181 SMPSPAVSFEVLFLPTTAAQANTHLLLLKDAQVGEEMGYSSDVAEFYHRLKLTQOY 240
QY 241 TDHCNVNNGVGLRGSTYDAWVKFNRRREMTLTVLDLIVLFPFYDIRLSKGVKTEL 300
DB 241 TDHCNVNNGVGLRGSTYDAWVKFNRRREMTLTVLDLIVLFPFYDIRLSKGVKTEL 300
QY 301 TRDIFTDPIFSLNTLOEYGTPLFSLIENSRKPHLFDYLGIFHTRLPQGYFGKDSFNW 360
DB 301 TRDIFTDPIFSLNTLOEYGTPLFSLIENSRKPHLFDYLGIFHTRLPQGYFGKDSFNW 360
QY 361 SGNVETREPSIGSSKTIITSPFYGDKSTEPVQKLSFDGQKVYRTIANTDVAAMPNGKVYLG 420
DB 361 SGNVETREPSIGSSKTIITSPFYGDKSTEPVQKLSFDGQKVYRTIANTDVAAMPNGKVYLG 420
QY 421 VTKVDFSOYDDQKNETSTQTYDSKRNGHVSAQDSIDQLPPETDDEPLEKAYSHQLNYAE 480
DB 421 VTKVDFSOYDDQKNETSTQTYDSKRNGHVSAQDSIDQLPPETDDEPLEKAYSHQLNYAE 480
QY 481 CFMDQRRGTIPFFTWTHRSVDFNTIDAOKITQLPVVKAYALSSGASIIIEGPGFTGGNL 540
DB 481 CFMDQRRGTIPFFTWTHRSVDFNTIDAOKITQLPVVKAYALSSGASIIIEGPGFTGGNL 540
QY 541 LFLKSSNSIAKFKVTLNSAALLQRYRVRIRYASTTNLRLFVQNSNNDFLVIYINKTMNK 600
DB 541 LFLKSSNSIAKFKVTLNSAALLQRYRVRIRYASTTNLRLFVQNSNNDFLVIYINKTMNK 600
QY 601 DDDLTQTQFDLATTNSNMFGSGDKNELIIGAESFVSNKIIYIDKIEFIPVOL 652
DB 601 DDDLTQTQFDLATTNSNMFGSGDKNELIIGAESFVSNKIIYIDKIEFIPVOL 652

RESULT 16
US-08-998-441B-68
; Sequence 68, Application US/089996441B
; Patent No. 6023013
; GENERAL INFORMATION:
; APPLICANT: English, Leigh H.
; APPLICANT: Brussock, Susan M.
; APPLICANT: Malvar, Thomas W.
; APPLICANT: Bryson, James W.
; APPLICANT: Kulesza, Caroline A.
; APPLICANT: Walters, Frederick S.
; APPLICANT: Slatin, Stephen L.
; APPLICANT: Von Terssch, Michael A.
; APPLICANT: Romano, Charles
; TITLE OF INVENTION: INSECT-RESISTANT TRANSGENIC PLANTS
; NUMBER OF SEQUENCES: 113
; CORRESPONDENCE ADDRESS:
; ADDRESSEE: Arnold, White & Durkee
; STREET: P.O. Box 4433
; CITY: Houston
; STATE: Texas
; COUNTRY: USA
; ZIP: 77210
; COMPUTER READABLE FORM:
; MEDIUM TYPE: Floppy disk
; COMPUTER: IBM PC compatible
; OPERATING SYSTEM: PC-DOS/MS-DOS
; SOFTWARE: Patent In Release #1.0, Version #1.30
; CURRENT APPLICATION DATA:
; APPLICATION NUMBER: US/08/996,441B
; FILING DATE: 18-DEC-1997
; CLASSIFICATION: 800
; ATTORNEY/AGENT INFORMATION:
; NAME: Kitchell, Barbara S.
; REGISTRATION NUMBER: 33,928
; REFERENCE/DOCKET NUMBER: MECO:151
; TELECOMMUNICATION INFORMATION:
; TELEPHONE: 512/418-3000
; TELEFAX: 512/474-7577
; INFORMATION FOR SEQ ID NO: 68:

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; SEQUENCE CHARACTERISTICS:
; LENGTH: 652 amino acids
; TYPE: amino acid
; TOPOLOGY: linear
; MOLECULE TYPE: protein
US-08-996-441B-68

Query Match          99.9%; Score 3402; DB 3; Length 652;
Best Local Similarity 99.8%; Pred. No. 1.3e-286;
Matches 651; Conservative 1; Mismatches 0; Indels 0; Gaps 0;

Qy 1 MNPNNRSEHDTIKVTPNSELOTHNQYPLADNPSTLEELNYKEFLRMTEDSSTEVLDNS 60
Db 1 MNPNNRSEHDTIKVTPNSELOTHNQYPLADNPSTLEELNYKEFLRMTEDSSTEVLDNS 60

Qy 61 TVKDAVGTGISVVGQILGVGVFPAGALTSTFYQSFLNTIWPSDADPWKAFMAQVEVLIDK 120
Db 61 TVKDAVGTGISVVGQILGVGVFPAGALTSTFYQSFLNTIWPSDADPWKAFMAQVEVLIDK 120

Qy 121 KIEEYAKSKALAELOGLQNNFEDYVNALNSWKKTPLSLRSKRSQDRIRBELFSQAESHFRN 180
Db 121 KIEEYAKSKALAELOGLQNNFEDYVNALNSWKKTPLSLRSKRSQDRIRBELFSQAESHFRN 180

Qy 181 SMPFAVSKFEVLFLPTTYAQAANTHLLLLKDAQVGEWGYSSDVAEFYHRQLKLTQY 240
Db 181 SMPFAVSKFEVLFLPTTYAQAANTHLLLLKDAQVGEWGYSSDVAEFYHRQLKLTQY 240

Qy 241 TDHCNVNWNVGLNGLRGSTDYDAWKFNFRREMTLTVLDLIVLFPFYDIRLYSGVKTEL 300
Db 241 TDHCNVNWNVGLNGLRGSTDYDAWKFNFRREMTLTVLDLIVLFPFYDIRLYSGVKTEL 300

Qy 301 TRDIFTDPFISLNTLOEQYGPFTLSIENSRKPHLFDYLOQIEFHTRLQPGYFGKDSFNW 360
Db 301 TRDIFTDPFISLNTLOEQYGPFTLSIENSRKPHLFDYLOQIEFHTRLQPGYFGKDSFNW 360

Qy 361 SGNVYETRPSIGSSKTIITSPFYGDKSTEPVQKLSFDGQKVYRTIANTDVAAMPNGKVYL 420
Db 361 SGNVYETRPSIGSSKTIITSPFYGDKSTEPVQKLSFDGQKVYRTIANTDVAAMPNGKVYL 420

Qy 421 VTKVDFSQYDDQKNETSTQTYDSKRNNGHVSAQDSIDQLPPTTDEPLEKAYSHQNLV 480
Db 421 VTKVDFSQYDDQKNETSTQTYDSKRNNGHVSAQDSIDQLPPTTDEPLEKAYSHQNLV 480

Qy 481 CFLMDRRGTIPFFTWTHRSVDFNTIDAETITQLPVVKAYALSSGASIIIEGPGFTGNL 540
Db 481 CFLMDRRGTIPFFTWTHRSVDFNTIDAETITQLPVVKAYALSSGASIIIEGPGFTGNL 540

Qy 541 LFLKSSNSIAKFKVTLNSAALLQRYRIRIYASTTNLRLFVQNSNNDPLVIYINKTNWK 600
Db 541 LFLKSSNSIAKFKVTLNSAALLQRYRIRIYASTTNLRLFVQNSNNDPLVIYINKTNWK 600

Qy 601 DDDLTYTQTFDLATNSNMFGSGDKNELIIGAESFVSNKIIYDKIEFTPVQL 652
Db 601 DDDLTYTQTFDLATNSNMFGSGDKNELIIGAESFVSNKIIYDKIEFTPVQL 652
```

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RESULT 17
US-08-993-722A-68
; Sequence 68, Application US/08993722A
; Patent No. 6060594
; GENERAL INFORMATION:
; APPLICANT: English, Leigh H.
; APPLICANT: Brussock, Susan M.
; APPLICANT: Malvar, Thomas M.
; APPLICANT: Bryson, James W.
; APPLICANT: Kulesza, Caroline A.
; APPLICANT: Walters, Frederick S.
; APPLICANT: Slatin, Stephen L.
; APPLICANT: Von Tersch, Michael A.
; APPLICANT: Romano, Charles
; TITLE OF INVENTION: NUCLEIC ACID SEGMENTS ENCODING MODIFIED
; TITLE OF INVENTION: COLSOPTERAN-TOXIC CRYSTAL PROTEINS
; NUMBER OF SEQUENCES: 113
```

```

; CORRESPONDENCE ADDRESS:
; ADDRESSEE: Arnold, White & Durkee
; STREET: P.O. Box 4433
; CITY: Houston
; STATE: Texas
; COUNTRY: USA
; ZIP: 77210
; COMPUTER READABLE FORM:
; MEDIUM TYPE: Floppy disk
; OPERATING SYSTEM: IBM PC compatible
; SOFTWARE: PatentIn Release #1.0, Version #1.30
; CURRENT APPLICATION DATA:
; APPLICATION NUMBER: US/08/993,722A
; FILING DATE: 18-DEC-1997
; CLASSIFICATION: 435
; ATTORNEY/AGENT INFORMATION:
; NAME: Kitchell, Barbara S.
; REGISTRATION NUMBER: 33,928
; REFERENCE/DOCKET NUMBER: MECO:149
; TELECOMMUNICATION INFORMATION:
; TELEPHONE: 512/418-3106
; TELEFAX: 512/474-7577
; INFORMATION FOR SEQ ID NO: 68:
; SEQUENCE CHARACTERISTICS:
; LENGTH: 652 amino acids
; TYPE: amino acid
; TOPOLOGY: linear
; MOLECULE TYPE: protein
US-08-993-722A-68

Query Match          99.9%; Score 3402; DB 3; Length 652;
Best Local Similarity 99.8%; Pred. No. 1.3e-286;
Matches 651; Conservative 1; Mismatches 0; Indels 0; Gaps 0;

Qy 1 MNPNNRSEHDTIKVTPNSELOTHNQYPLADNPSTLEELNYKEFLRMTEDSSTEVLDNS 60
Db 1 MNPNNRSEHDTIKVTPNSELOTHNQYPLADNPSTLEELNYKEFLRMTEDSSTEVLDNS 60

Qy 61 TVKDAVGTGISVVGQILGVGVFPAGALTSTFYQSFLNTIWPSDADPWKAFMAQVEVLIDK 120
Db 61 TVKDAVGTGISVVGQILGVGVFPAGALTSTFYQSFLNTIWPSDADPWKAFMAQVEVLIDK 120

Qy 121 KIEEYAKSKALAELOGLQNNFEDYVNALNSWKKTPLSLRSKRSQDRIRBELFSQAESHFRN 180
Db 121 KIEEYAKSKALAELOGLQNNFEDYVNALNSWKKTPLSLRSKRSQDRIRBELFSQAESHFRN 180

Qy 181 SMPFAVSKFEVLFLPTTYAQAANTHLLLLKDAQVGEWGYSSDVAEFYHRQLKLTQY 240
Db 181 SMPFAVSKFEVLFLPTTYAQAANTHLLLLKDAQVGEWGYSSDVAEFYHRQLKLTQY 240

Qy 241 TDHCNVNWNVGLNGLRGSTDYDAWKFNFRREMTLTVLDLIVLFPFYDIRLYSGVKTEL 300
Db 241 TDHCNVNWNVGLNGLRGSTDYDAWKFNFRREMTLTVLDLIVLFPFYDIRLYSGVKTEL 300

Qy 301 TRDIFTDPFISLNTLOEQYGPFTLSIENSRKPHLFDYLOQIEFHTRLQPGYFGKDSFNW 360
Db 301 TRDIFTDPFISLNTLOEQYGPFTLSIENSRKPHLFDYLOQIEFHTRLQPGYFGKDSFNW 360

Qy 361 SGNVYETRPSIGSSKTIITSPFYGDKSTEPVQKLSFDGQKVYRTIANTDVAAMPNGKVYL 420
Db 361 SGNVYETRPSIGSSKTIITSPFYGDKSTEPVQKLSFDGQKVYRTIANTDVAAMPNGKVYL 420

Qy 421 VTKVDFSQYDDQKNETSTQTYDSKRNNGHVSAQDSIDQLPPTTDEPLEKAYSHQNLV 480
Db 421 VTKVDFSQYDDQKNETSTQTYDSKRNNGHVSAQDSIDQLPPTTDEPLEKAYSHQNLV 480

Qy 481 CFLMDRRGTIPFFTWTHRSVDFNTIDAETITQLPVVKAYALSSGASIIIEGPGFTGNL 540
Db 481 CFLMDRRGTIPFFTWTHRSVDFNTIDAETITQLPVVKAYALSSGASIIIEGPGFTGNL 540

Qy 541 LFLKSSNSIAKFKVTLNSAALLQRYRIRIYASTTNLRLFVQNSNNDPLVIYINKTNWK 600
Db 541 LFLKSSNSIAKFKVTLNSAALLQRYRIRIYASTTNLRLFVQNSNNDPLVIYINKTNWK 600
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Db 541 LFLKSSNSIAKFKVTLNSAALLQRYVRIRYASTTNLRFLVQNSNNDPLVIYINKTMNK 600
Qy 601 DDDLTYQTFDLATNSNMGFSGDKNELIIGAESFVSNEKIYIDKIEFIPVOL 652
Db 601 DDDLTYQTFDLATNSNMGFSGDKNELIIGAESFVSNEKIYIDKIEFIPVOL 652

RESULT 18
US-08-993-170A-68
; Sequence 68, Application US/08993170A
; Patent No. 6063597
; GENERAL INFORMATION:
; APPLICANT: English, Leigh H.
; APPLICANT: Brussock, Susan M.
; APPLICANT: Malvar, Thomas M.
; APPLICANT: Bryson, James W.
; APPLICANT: Kulesza, Caroline A.
; APPLICANT: Walters, Frederick S.
; APPLICANT: Slatin, Stephen L.
; APPLICANT: Von Tersch, Michael A.
; TITLE OF INVENTION: POLYPEPTIDE COMPOSITIONS TOXIC TO
; TITLE OF INVENTION: COLEOPTERAN INSECTS
; NUMBER OF SEQUENCES: 113
; CORRESPONDENCE ADDRESS:
; ADDRESSEE: Arnold, White & Durkee
; STREET: P.O. Box 4433
; CITY: Houston
; STATE: Texas
; COUNTRY: USA
; ZIP: 77210
; COMPUTER READABLE FORM:
; MEDIUM TYPE: Floppy disk
; COMPUTER: IBM PC compatible
; OPERATING SYSTEM: PC-DOS/MS-DOS
; SOFTWARE: PatentIn Release #1.0, Version #1.30
; CURRENT APPLICATION DATA:
; APPLICATION NUMBER: US/08/993,170A
; FILING DATE: 18-DEC-1997
; CLASSIFICATION: 424
; ATTORNEY/AGENT INFORMATION:
; NAME: Kitchell, Barbara S.
; REGISTRATION NUMBER: 33,928
; REFERENCE/DOCKET NUMBER: MECO:002
; TELECOMMUNICATION INFORMATION:
; TELEPHONE: 512/418-3000
; TELEFAX: 512/474-7577
; INFORMATION FOR SEQ ID NO: 68:
; SEQUENCE CHARACTERISTICS:
; LENGTH: 652 amino acids
; TYPE: amino acid
; TOPOLOGY: linear
; MOLECULE TYPE: protein
; US-08-993-170A-68

Query Match 99.9%; Score 3402; DB 3; Length 652;
Best Local Similarity 99.8%; Pred. No. 1.3e-286;
Matches 651; Conservative 1; Mismatches 0; Indels 0; Gaps 0;

Qy 1 MNPNNSEHDTIKVTNPSELQTHNQYPLADNPNSTLEELNYKEFLRMTESSSTEVLDS 60
Db 1 MNPNNSEHDTIKVTNPSELQTHNQYPLADNPNSTLEELNYKEFLRMTESSSTEVLDS 60
Qy 61 TVKDAGVTGIVGVGVFPAGALTSFYQSFLNTIWPSPADPWKAFMAQVEVLIDK 120
Db 61 TVKDAGVTGIVGVGVFPAGALTSFYQSFLNTIWPSPADPWKAFMAQVEVLIDK 120
Qy 121 KIEEYAKSKALAELOQLQNNFEDYVNALNSWKKTPLSLRSKRSQDRIRELFSQAESHFRN 180
Db 121 KIEEYAKSKALAELOQLQNNFEDYVNALNSWKKTPLSLRSKRSQDRIRELFSQAESHFRN 180
Qy 181 SMPSPAVSKFEVLFLPTYAAQANTHLLLLKDAQVFGEEWGYSSDVAEFYHROLKLTQOY 240
Db 181 SMPSPAVSKFEVLFLPTYAAQANTHLLLLKDAQVFGEEWGYSSDVAEFYHROLKLTQOY 240

Qy 241 TDCVNVNVLNGLRGSTYDAWVKFNRFREMTLTVLVDLIVLPPFYDIRLYSGVKTEL 300
Db 241 TDCVNVNVLNGLRGSTYDAWVKFNRFREMTLTVLVDLIVLPPFYDIRLYSGVKTEL 300
Qy 301 TRDIFTDPIFSLNTLQEGYPTPLSIENSIKPHLFDYLOQIEFHTRLQPGYFGKDSFNYW 360
Db 301 TRDIFTDPIFSLNTLQEGYPTPLSIENSIKPHLFDYLOQIEFHTRLQPGYFGKDSFNYW 360
Qy 361 SGNVETRPSIGSSKTTSPFYGDKSTEPVKLSFDGQKUYRTIANTDVAWPNKUYLG 420
Db 361 SGNVETRPSIGSSKTTSPFYGDKSTEPVKLSFDGQKUYRTIANTDVAWPNKUYLG 420
Qy 421 VTKVDFSOYDDQKNETSTQYDSKRNGHVSQAODSIDQLPPTTDEPLEKAYSHQLNYAE 480
Db 421 VTKVDFSOYDDQKNETSTQYDSKRNGHVSQAODSIDQLPPTTDEPLEKAYSHQLNYAE 480
Qy 481 CFLMQDRRGITPPFTWTHRSVDFNTIDAETKIPOLPVKAYALSSGASIEGPGFTGNNL 540
Db 481 CFLMQDRRGITPPFTWTHRSVDFNTIDAETKIPOLPVKAYALSSGASIEGPGFTGNNL 540
Qy 541 LFLKSSNSIAKFKVTLNSAALLQRYVRIRYASTTNLRFLVQNSNNDPLVIYINKTMNK 600
Db 541 LFLKSSNSIAKFKVTLNSAALLQRYVRIRYASTTNLRFLVQNSNNDPLVIYINKTMNK 600
Qy 601 DDDLTYQTFDLATNSNMGFSGDKNELIIGAESFVSNEKIYIDKIEFIPVOL 652
Db 601 DDDLTYQTFDLATNSNMGFSGDKNELIIGAESFVSNEKIYIDKIEFIPVOL 652

RESULT 19
US-08-993-775B-68
; Sequence 68, Application US/08993775B
; Patent No. 6077824
; GENERAL INFORMATION:
; APPLICANT: English, Leigh H.
; APPLICANT: Brussock, Susan M.
; APPLICANT: Malvar, Thomas M.
; APPLICANT: Bryson, James W.
; APPLICANT: Kulesza, Caroline A.
; APPLICANT: Walters, Frederick S.
; APPLICANT: Slatin, Stephen L.
; APPLICANT: Von Tersch, Michael A.
; TITLE OF INVENTION: METHODS FOR IMPROVING THE ACTIVITY OF
; TITLE OF INVENTION: DELTA-ENDOTOXINS AGAINST INSECT PESTS
; NUMBER OF SEQUENCES: 113
; CORRESPONDENCE ADDRESS:
; ADDRESSEE: Arnold, White & Durkee
; STREET: P.O. Box 4433
; CITY: Houston
; STATE: Texas
; COUNTRY: USA
; ZIP: 77210
; COMPUTER READABLE FORM:
; MEDIUM TYPE: Floppy disk
; COMPUTER: IBM PC compatible
; OPERATING SYSTEM: PC-DOS/MS-DOS
; SOFTWARE: PatentIn Release #1.0, Version #1.30
; CURRENT APPLICATION DATA:
; APPLICATION NUMBER: US/08/993,775B
; FILING DATE: 18-DEC-1997
; CLASSIFICATION: 514
; ATTORNEY/AGENT INFORMATION:
; NAME: Kitchell, Barbara S.
; REGISTRATION NUMBER: 33,928
; REFERENCE/DOCKET NUMBER: MECO:150
; TELECOMMUNICATION INFORMATION:
; TELEPHONE: 512/418-3000
; TELEFAX: 512/474-7577
; INFORMATION FOR SEQ ID NO: 68:
; SEQUENCE CHARACTERISTICS:
; LENGTH: 652 amino acids
; TYPE: amino acid

TOPOLOGY: linear
MOLECULE TYPE: protein
US-08-993-775B-68

Query Match 99.9%; Score 3402; DB 3; Length 652;
Best Local Similarity 99.8%; Pred. No. 1.3e-286;
Matches 651; Conservative 1; Mismatches 0; Indels 0; Gaps 0;

QY 1 MNPNNRSEHDTIKVTPNSELOTHNQYPLADNPSTLEELNYKEFLRMTESSSTEVLNDS 60
DB 1 MNPNNRSEHDTIKVTPNSELOTHNQYPLADNPSTLEELNYKEFLRMTESSSTEVLNDS 60

QY 61 TVKDAVGTGISVVGQILGVVGPFGAGALTSFYQSFLNTIWPSSDADPWKAFAQVEVLIDK 120
DB 61 TVKDAVGTGISVVGQILGVVGPFGAGALTSFYQSFLNTIWPSSDADPWKAFAQVEVLIDK 120

QY 121 KIEEYAKSKALAELOGLQNNFEDYVNALNSWKKTPLSLRSKESQDRIRLELFSQAESHFRN 180
DB 121 KIEEYAKSKALAELOGLQNNFEDYVNALNSWKKTPLSLRSKESQDRIRLELFSQAESHFRN 180

QY 181 SMPSPAVSKFEVLFLPTVAQAANTHLLLLKDAQVFGGEWGYSSDVAEFYHRQLKLTQOY 240
DB 181 SMPSPAVSKFEVLFLPTVAQAANTHLLLLKDAQVFGGEWGYSSDVAEFYHRQLKLTQOY 240

QY 241 TDHCNVNWNVGLNGRGSTYDAWVKFNRRREMTLTVLDLIVLFPFYDIRLYSKGVKTEL 300
DB 241 TDHCNVNWNVGLNGRGSTYDAWVKFNRRREMTLTVLDLIVLFPFYDIRLYSKGVKTEL 300

QY 301 TRDIFTDFISLNTLOEYGTPLFSLIENSRKPHLFDYLOGIEFHTRLOPGYFGKDSFNW 360
DB 301 TRDIFTDFISLNTLOEYGTPLFSLIENSRKPHLFDYLOGIEFHTRLOPGYFGKDSFNW 360

QY 361 SGNVYETRPSIGSSKTIITSPFYGDKSTEPVQKLSPDQGVKVRTIANTDVAAPNGKVLG 420
DB 361 SGNVYETRPSIGSSKTIITSPFYGDKSTEPVQKLSPDQGVKVRTIANTDVAAPNGKVLG 420

QY 421 VTKVDFSQYDDQKNETSTQYDSKRNNGHVSAODSIDQLPETTDEPLEKAYSHQLNVAE 480
DB 421 VTKVDFSQYDDQKNETSTQYDSKRNNGHVSAODSIDQLPETTDEPLEKAYSHQLNVAE 480

QY 481 CFLMDQRRGTIPFTWTHRSVDFNTIDAETKITQLPVVKAYALSSGASIIIEGPGFTGGNL 540
DB 481 CFLMDQRRGTIPFTWTHRSVDFNTIDAETKITQLPVVKAYALSSGASIIIEGPGFTGGNL 540

QY 541 LFLKESNSIAKFKVTLNSAALLQRYVRIRYASTTNLRLFVQNSNNDFLVIYINKTMNK 600
DB 541 LFLKESNSIAKFKVTLNSAALLQRYVRIRYASTTNLRLFVQNSNNDFLVIYINKTMNK 600

QY 601 DDDLTQOTFDLATTNSNMGSGDKNELIIGAESFVSNEKIYIDKIEFIPVQL 652
DB 601 DDDLTQOTFDLATTNSNMGSGDKNELIIGAESFVSNEKIYIDKIEFIPVQL 652

RESULT 20
US-09-427-770-68
Sequence 68, Application US/09427770
Patent No. 6620988
GENERAL INFORMATION:
APPLICANT: English, Leigh H.
APPLICANT: Brusseock, Susan M.
APPLICANT: Malvar, Thomas M.
APPLICANT: Bryson, James W.
APPLICANT: Kulesza, Caroline A.
APPLICANT: Walters, Frederick S.
APPLICANT: Slatin, Stephen L.
APPLICANT: Von Teresch, Michael A.
APPLICANT: Romano, Charles
TITLE OF INVENTION: NUCLEIC ACID SEGMENTS ENCODING MODIFIED
TITLE OF INVENTION: COLEOPTERAN-TOXIC CRYSTAL PROTEINS
NUMBER OF SEQUENCES: 113
CORRESPONDENCE ADDRESS:
ADDRESSEE: Arnold, White & Durkee
STREET: P.O. Box 4433

CITY: Houston
STATE: Texas
COUNTRY: USA
ZIP: 77210
COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patent in Release #1.0, Version #1.30
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/09/427,770
FILING DATE:
CLASSIFICATION:
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 08/993,722
FILING DATE: 18-DEC-1997
ATTORNEY/AGENT INFORMATION:
NAME: Kitchell, Barbara S.
REGISTRATION NUMBER: 33,928
REFERENCE/DOCKET NUMBER: MECO:149
TELECOMMUNICATION INFORMATION:
TELEPHONE: 512/418-3106
TELEFAX: 512/474-7577
INFORMATION FOR SEQ ID NO: 68:
SEQUENCE CHARACTERISTICS:
LENGTH: 652 amino acids
TYPE: amino acid
TOPOLOGY: linear
MOLECULE TYPE: protein
US-09-427-770-68

Query Match 99.9%; Score 3402; DB 4; Length 652;
Best Local Similarity 99.8%; Pred. No. 1.3e-286;
Matches 651; Conservative 1; Mismatches 0; Indels 0; Gaps 0;

QY 1 MNPNNRSEHDTIKVTPNSELOTHNQYPLADNPSTLEELNYKEFLRMTESSSTEVLNDS 60
DB 1 MNPNNRSEHDTIKVTPNSELOTHNQYPLADNPSTLEELNYKEFLRMTESSSTEVLNDS 60

QY 61 TVKDAVGTGISVVGQILGVVGPFGAGALTSFYQSFLNTIWPSSDADPWKAFAQVEVLIDK 120
DB 61 TVKDAVGTGISVVGQILGVVGPFGAGALTSFYQSFLNTIWPSSDADPWKAFAQVEVLIDK 120

QY 121 KIEEYAKSKALAELOGLQNNFEDYVNALNSWKKTPLSLRSKESQDRIRLELFSQAESHFRN 180
DB 121 KIEEYAKSKALAELOGLQNNFEDYVNALNSWKKTPLSLRSKESQDRIRLELFSQAESHFRN 180

QY 181 SMPSPAVSKFEVLFLPTVAQAANTHLLLLKDAQVFGGEWGYSSDVAEFYHRQLKLTQOY 240
DB 181 SMPSPAVSKFEVLFLPTVAQAANTHLLLLKDAQVFGGEWGYSSDVAEFYHRQLKLTQOY 240

QY 241 TDHCNVNWNVGLNGRGSTYDAWVKFNRRREMTLTVLDLIVLFPFYDIRLYSKGVKTEL 300
DB 241 TDHCNVNWNVGLNGRGSTYDAWVKFNRRREMTLTVLDLIVLFPFYDIRLYSKGVKTEL 300

QY 301 TRDIFTDFISLNTLOEYGTPLFSLIENSRKPHLFDYLOGIEFHTRLOPGYFGKDSFNW 360
DB 301 TRDIFTDFISLNTLOEYGTPLFSLIENSRKPHLFDYLOGIEFHTRLOPGYFGKDSFNW 360

QY 361 SGNVYETRPSIGSSKTIITSPFYGDKSTEPVQKLSPDQGVKVRTIANTDVAAPNGKVLG 420
DB 361 SGNVYETRPSIGSSKTIITSPFYGDKSTEPVQKLSPDQGVKVRTIANTDVAAPNGKVLG 420

QY 421 VTKVDFSQYDDQKNETSTQYDSKRNNGHVSAODSIDQLPETTDEPLEKAYSHQLNVAE 480
DB 421 VTKVDFSQYDDQKNETSTQYDSKRNNGHVSAODSIDQLPETTDEPLEKAYSHQLNVAE 480

QY 481 CFLMDQRRGTIPFTWTHRSVDFNTIDAETKITQLPVVKAYALSSGASIIIEGPGFTGGNL 540
DB 481 CFLMDQRRGTIPFTWTHRSVDFNTIDAETKITQLPVVKAYALSSGASIIIEGPGFTGGNL 540

QY 541 LFLKESNSIAKFKVTLNSAALLQRYVRIRYASTTNLRLFVQNSNNDFLVIYINKTMNK 600
DB 541 LFLKESNSIAKFKVTLNSAALLQRYVRIRYASTTNLRLFVQNSNNDFLVIYINKTMNK 600

Db 541 LFLKSSNSIAKFKVTLNSAALLQRYRVRIRYASTTNLRLFVQNSNNDFLVIVINKTMNK 600
QY 601 DDDLTYQTFDLATNNSMGSGDKNELIIGAESFVSNEKIYIDKIEFIPVOL 652
Db 601 DDDLTYQTFDLATNNSMGSGDKNELIIGAESFVSNEKIYIDKIEFIPVOL 652

RESULT 21
US-09-427-769-68
; Sequence 68, Application US/09427769
; Patent No. 6642030
; GENERAL INFORMATION:
; APPLICANT: English, Leigh H.
; APPLICANT: Brussock, Susan M.
; APPLICANT: Malvar, Thomas M.
; APPLICANT: Bryson, James W.
; APPLICANT: Kulesza, Caroline A.
; APPLICANT: Walters, Frederick S.
; APPLICANT: Slatin, Stephen L.
; APPLICANT: Von Tersch, Michael A.
; APPLICANT: Romano, Charles
; TITLE OF INVENTION: NUCLEIC ACID SEGMENTS ENCODING MODIFIED
; TITLE OF INVENTION: COLEOPTERAN-TOXIC CRYSTAL PROTEINS
; NUMBER OF SEQUENCES: 113
; CORRESPONDENCE ADDRESS:
; ADDRESSEE: Arnold, White & Durkee
; STREET: P.O. Box 4433
; CITY: Houston
; STATE: Texas
; COUNTRY: USA
; ZIP: 77210
; COMPUTER READABLE FORM:
; MEDIUM TYPE: Floppy disk
; COMPUTER: IBM PC compatible
; OPERATING SYSTEM: PC-DOS/MS-DOS
; SOFTWARE: Patent In Release #1.0, Version #1.30
; CURRENT APPLICATION DATA:
; APPLICATION NUMBER: US/09/427,769
; FILING DATE:
; CLASSIFICATION:
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER: 08/993,722
; FILING DATE:
; ATTORNEY/AGENT INFORMATION:
; NAME: Kitchell, Barbara S.
; REGISTRATION NUMBER: 33,928
; REFERENCE/DOCKET NUMBER: MECO:149
; TELECOMMUNICATION INFORMATION:
; TELEPHONE: 512/418-3106
; TELEFAX: 512/474-7577
; INFORMATION FOR SEQ ID NO: 68:
; SEQUENCE CHARACTERISTICS:
; LENGTH: 652 amino acids
; TYPE: amino acid
; TOPOLOGY: linear
; MOLECULE TYPE: protein
US-09-427-769-68

Query Match 99.9%; Score 3402; DB 4; Length 652;
Best Local Similarity 99.8%; Pred. No. 1.3e-286;
Matches 651; Conservative 1; Mismatches 0; Indels 0; Gaps 0;

QY 1 MNPNNRSEHDTIKVTNSELQTHNNOYPLADNPNSTLEELNYKEFLRMWEDSDSTEVLDS 60
Db 1 MNPNNRSEHDTIKVTNSELQTHNNOYPLADNPNSTLEELNYKEFLRMWEDSDSTEVLDS 60
QY 61 TVKDVGTVGISVVGQILGVGVFPFAGALTSFYQSFLNTIWPSDADPWKAFMAQVEVLIDK 120
Db 61 TVKDVGTVGISVVGQILGVGVFPFAGALTSFYQSFLNTIWPSDADPWKAFMAQVEVLIDK 120
QY 121 KIBEYAKSKALAEIQGLQNNFEDYVNALNSWKKTPLSLRSKRSQDRIRLFSQAESHFRN 180
Db 121 KIBEYAKSKALAEIQGLQNNFEDYVNALNSWKKTPLSLRSKRSQDRIRLFSQAESHFRN 180

QY 181 SMPSPAVSKFEVLPLPTYAQAANTHLLLLKDAOVFGEEMGYSSSEDVAEFYHROLKLTQOY 240
Db 181 SMPSPAVSKFEVLPLPTYAQAANTHLLLLKDAOVFGEEMGYSSSEDVAEFYHROLKLTQOY 240
QY 241 TDHCVMYNYVGLNGLRGSTYDAWVKFNRRREMTLTVDLILVLPFPYDIRLYSKGVKTEL 300
Db 241 TDHCVMYNYVGLNGLRGSTYDAWVKFNRRREMTLTVDLILVLPFPYDIRLYSKGVKTEL 300
QY 301 TRDIPTDPIFSLNTLOEYGTFLSIENSIRKPHLFDYLOGIEFHTRLPOGYFGKDSFNYW 360
Db 301 TRDIPTDPIFSLNTLOEYGTFLSIENSIRKPHLFDYLOGIEFHTRLPOGYFGKDSFNYW 360
QY 361 SGNVETRPSIGSSKTIITSPFYGDKSTEPVQKLSFDGQKVYRTIANTDVAWPNKGVYLG 420
Db 361 SGNVETRPSIGSSKTIITSPFYGDKSTEPVQKLSFDGQKVYRTIANTDVAWPNKGVYLG 420
QY 421 VTKVDFSYDDQKNETSTQTYDSKRNHVSQAQDSIDLPPETDDEPLEKAYSHQLNYAE 480
Db 421 VTKVDFSYDDQKNETSTQTYDSKRNHVSQAQDSIDLPPETDDEPLEKAYSHQLNYAE 480
QY 481 CFLMODRGRTIPFTWTHRSVDFNTIDAETQLPVVKAYALSSGASIIIEGPGFTGGNL 540
Db 481 CFLMODRGRTIPFTWTHRSVDFNTIDAETQLPVVKAYALSSGASIIIEGPGFTGGNL 540
QY 541 LFLKSSNSIAKFKVTLNSAALLQRYRVRIRYASTTNLRLFVQNSNNDFLVIVINKTMNK 600
Db 541 LFLKSSNSIAKFKVTLNSAALLQRYRVRIRYASTTNLRLFVQNSNNDFLVIVINKTMNK 600
QY 601 DDDLTYQTFDLATNNSMGSGDKNELIIGAESFVSNEKIYIDKIEFIPVOL 652
Db 601 DDDLTYQTFDLATNNSMGSGDKNELIIGAESFVSNEKIYIDKIEFIPVOL 652

RESULT 22
US-08-996-441B-14
; Sequence 14, Application US/08996441B
; Patent No. 6023013
; GENERAL INFORMATION:
; APPLICANT: English, Leigh H.
; APPLICANT: Brussock, Susan M.
; APPLICANT: Malvar, Thomas M.
; APPLICANT: Bryson, James W.
; APPLICANT: Kulesza, Caroline A.
; APPLICANT: Walters, Frederick S.
; APPLICANT: Slatin, Stephen L.
; APPLICANT: Von Tersch, Michael A.
; APPLICANT: Romano, Charles
; TITLE OF INVENTION: INSECT-RESISTANT TRANSGENIC PLANTS
; NUMBER OF SEQUENCES: 113
; CORRESPONDENCE ADDRESS:
; ADDRESSEE: Arnold, White & Durkee
; STREET: P.O. Box 4433
; CITY: Houston
; STATE: Texas
; COUNTRY: USA
; ZIP: 77210
; COMPUTER READABLE FORM:
; MEDIUM TYPE: Floppy disk
; COMPUTER: IBM PC compatible
; OPERATING SYSTEM: PC-DOS/MS-DOS
; SOFTWARE: Patent In Release #1.0, Version #1.30
; CURRENT APPLICATION DATA:
; APPLICATION NUMBER: US/08/996,441B
; FILING DATE: 18-DEC-1997
; CLASSIFICATION: 800
; ATTORNEY/AGENT INFORMATION:
; NAME: Kitchell, Barbara S.
; REGISTRATION NUMBER: 33,928
; REFERENCE/DOCKET NUMBER: MECO:151
; TELECOMMUNICATION INFORMATION:
; TELEPHONE: 512/418-3000
; TELEFAX: 512/474-7577

INFORMATION FOR SEQ ID NO: 14:
SEQUENCE CHARACTERISTICS:
LENGTH: 652 amino acids
TYPE: amino acid
TOPOLOGY: linear
MOLECULE TYPE: protein
US-08-996-441B-14

Query Match 99.9%; Score 3401; DB 3; Length 652;
Best Local Similarity 99.8%; Pred. No. 1.6e-286;
Matches 651; Conservative 0; Mismatches 1; Indels 0; Gaps 0;

QY 1 MNPNNRSEHDTIKVTPNSLQTNHNOYPLADNPSTLEELNYKEFLRMTESSTEVLNDS 60
Db 1 MNPNNRSEHDTIKVTPNSLQTNHNOYPLADNPSTLEELNYKEFLRMTESSTEVLNDS 60

QY 61 TVKDAVGTGIVSVGQILGVGVPPFAGALTSPYQSFNTIWPSDADPWKAFMAQVEVLIDK 120
Db 61 TVKDAVGTGIVSVGQILGVGVPPFAGALTSPYQSFNTIWPSDADPWKAFMAQVEVLIDK 120

QY 121 KIEEYAKSKALAEQLQGNFEDYVNALNSWKTPLSLRKRSQDRIRELFSQAESHFRN 180
Db 121 KIEEYAKSKALAEQLQGNFEDYVNALNSWKTPLSLRKRSQDRIRELFSQAESHFRN 180

QY 181 SMPFSAVSKFEVLFLPTTAAQANTHLLKDAQVFGEEGWYSSDVAEFYHRQLKLTQY 240
Db 181 SMPFSAVSKFEVLFLPTTAAQANTHLLKDAQVFGEEGWYSSDVAEFYHRQLKLTQY 240

QY 241 TDHCNVNNGVGLRGSTYDAWKFNRRREMTLVLDLIVLPFYDIRLYSKGVKTEL 300
Db 241 TDHCNVNNGVGLRGSTYDAWKFNRRREMTLVLDLIVLPFYDIRLYSKGVKTEL 300

QY 301 TRDIFTDPIFSLNTLOEYGFTELSIENSRKPHLFDYLOGIEFHTLRLOPGYFGKDSFNW 360
Db 301 TRDIFTDPIFSLNTLOEYGFTELSIENSRKPHLFDYLOGIEFHTLRLOPGYFGKDSFNW 360

QY 361 SGNVYETRPSIGSKTITSPYGDKSTEPVKLSFGQKRYRTIANTDVAAMPNGKVYLG 420
Db 361 SGNVYETRPSIGSKTITSPYGDKSTEPVKLSFGQKRYRTIANTDVAAMPNGKVYLG 420

QY 421 VTKVDFSOYDDOKNETSTQYDSKRNNGHVSAODSIDQLPPTTDEPLEKAYSHQLNYAE 480
Db 421 VTKVDFSOYDDOKNETSTQYDSKRNNGHVSAODSIDQLPPTTDEPLEKAYSHQLNYAE 480

QY 481 CFLMQDRRGRTIPFTTWRSDVPNTIDAEKITQLPVVKAYALSSGASIIIEGPGFTGGNL 540
Db 481 CFLMQDRRGRTIPFTTWRSDVPNTIDAEKITQLPVVKAYALSSGASIIIEGPGFTGGNL 540

QY 541 LFLKSSNSIAKFKVTLSAALLQRYRIRYASTTNLRLFVQNSNNDFLVIYINKTMNK 600
Db 541 LFLKSSNSIAKFKVTLSAALLQRYRIRYASTTNLRLFVQNSNNDFLVIYINKTMNK 600

QY 601 DDDLTQYQTFDLATNSNMGFSGDKNELIIGAESFVSNEKIYIDKIEFIPVOL 652
Db 601 DDDLTQYQTFDLATNSNMGFSGDKNELIIGAESFVSNEKIYIDKIEFIPVOL 652

RESULT 23
US-08-993-722A-14
Sequence 14, Application US/08993722A
Patent No. 6060594
GENERAL INFORMATION:
APPLICANT: English, Leigh H.
APPLICANT: Bruscock, Susan M.
APPLICANT: Malvar, Thomas M.
APPLICANT: Bryson, James W.
APPLICANT: Kulesza, Caroline A.
APPLICANT: Walters, Frederick S.
APPLICANT: Slatin, Stephen L.
APPLICANT: von Terssch, Michael A.
APPLICANT: Romano, Charles
TITLE OF INVENTION: NUCLEIC ACID SEGMENTS ENCODING MODIFIED
TITLE OF INVENTION: COLEOPTERAN-TOXIC CRYSTAL PROTEINS

NUMBER OF SEQUENCES: 113
CORRESPONDENCE ADDRESS:
ADDRESSEE: Arnold, White & Durkee
STREET: P.O. Box 4433
CITY: Houston
STATE: Texas
COUNTRY: USA
ZIP: 77210
COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: PatentIn Release #1.0, Version #1.30
CURRENT APPLICATION DATA: US/08/993,722A
APPLICATION NUMBER: US/08/993,722A
FILING DATE: 18-DEC-1997
CLASSIFICATION: 435
ATTORNEY/AGENT INFORMATION:
NAME: Kitchell, Barbara S.
REGISTRATION NUMBER: 33,928
REFERENCE/DOCKET NUMBER: MECO:149
TELECOMMUNICATION INFORMATION:
TELEPHONE: 512/418-3106
TELEFAX: 512/474-7577
INFORMATION FOR SEQ ID NO: 14:
SEQUENCE CHARACTERISTICS:
LENGTH: 652 amino acids
TYPE: amino acid
TOPOLOGY: linear
MOLECULE TYPE: protein
US-08-993-722A-14

Query Match 99.9%; Score 3401; DB 3; Length 652;
Best Local Similarity 99.8%; Pred. No. 1.6e-286;
Matches 651; Conservative 0; Mismatches 1; Indels 0; Gaps 0;

QY 1 MNPNNRSEHDTIKVTPNSLQTNHNOYPLADNPSTLEELNYKEFLRMTESSTEVLNDS 60
Db 1 MNPNNRSEHDTIKVTPNSLQTNHNOYPLADNPSTLEELNYKEFLRMTESSTEVLNDS 60

QY 61 TVKDAVGTGIVSVGQILGVGVPPFAGALTSPYQSFNTIWPSDADPWKAFMAQVEVLIDK 120
Db 61 TVKDAVGTGIVSVGQILGVGVPPFAGALTSPYQSFNTIWPSDADPWKAFMAQVEVLIDK 120

QY 121 KIEEYAKSKALAEQLQGNFEDYVNALNSWKTPLSLRKRSQDRIRELFSQAESHFRN 180
Db 121 KIEEYAKSKALAEQLQGNFEDYVNALNSWKTPLSLRKRSQDRIRELFSQAESHFRN 180

QY 181 SMPFSAVSKFEVLFLPTTAAQANTHLLKDAQVFGEEGWYSSDVAEFYHRQLKLTQY 240
Db 181 SMPFSAVSKFEVLFLPTTAAQANTHLLKDAQVFGEEGWYSSDVAEFYHRQLKLTQY 240

QY 241 TDHCNVNNGVGLRGSTYDAWKFNRRREMTLVLDLIVLPFYDIRLYSKGVKTEL 300
Db 241 TDHCNVNNGVGLRGSTYDAWKFNRRREMTLVLDLIVLPFYDIRLYSKGVKTEL 300

QY 301 TRDIFTDPIFSLNTLOEYGFTELSIENSRKPHLFDYLOGIEFHTLRLOPGYFGKDSFNW 360
Db 301 TRDIFTDPIFSLNTLOEYGFTELSIENSRKPHLFDYLOGIEFHTLRLOPGYFGKDSFNW 360

QY 361 SGNVYETRPSIGSKTITSPYGDKSTEPVKLSFGQKRYRTIANTDVAAMPNGKVYLG 420
Db 361 SGNVYETRPSIGSKTITSPYGDKSTEPVKLSFGQKRYRTIANTDVAAMPNGKVYLG 420

QY 421 VTKVDFSOYDDOKNETSTQYDSKRNNGHVSAODSIDQLPPTTDEPLEKAYSHQLNYAE 480
Db 421 VTKVDFSOYDDOKNETSTQYDSKRNNGHVSAODSIDQLPPTTDEPLEKAYSHQLNYAE 480

QY 481 CFLMQDRRGRTIPFTTWRSDVPNTIDAEKITQLPVVKAYALSSGASIIIEGPGFTGGNL 540
Db 481 CFLMQDRRGRTIPFTTWRSDVPNTIDAEKITQLPVVKAYALSSGASIIIEGPGFTGGNL 540

QY 541 LFLKSSNSIAKFKVTLSAALLQRYRIRYASTTNLRLFVQNSNNDFLVIYINKTMNK 600
Db 541 LFLKSSNSIAKFKVTLSAALLQRYRIRYASTTNLRLFVQNSNNDFLVIYINKTMNK 600

QY 601 DDDLTQYQTFDLATNSNMGFSGDKNELIIGAESFVSNEKIYIDKIEFIPVOL 652
Db 601 DDDLTQYQTFDLATNSNMGFSGDKNELIIGAESFVSNEKIYIDKIEFIPVOL 652


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Db 541 LFLKSSNSIAKFKVTLNSAALLQRYVRIRYASTTNLRLFVQNSNDFLVIYINKTMNK 600
Qy 601 DDDLTYQTDFLATNNSMGSGDKNELIIIGAESFVSNKEIYIDKIEFIPVOL 652
Db 601 DDDLTYQTDFLATNNSMGSGDKNELIIIGAESFVSNKEIYIDKIEFIPVOL 652

RESULT 24
US-08-993-170A-14
; Sequence 14, Application US/089931170A
; Patent No. 6063597
; GENERAL INFORMATION:
; APPLICANT: English, Leigh H.
; APPLICANT: Brussock, Susan M.
; APPLICANT: Malvar, Thomas M.
; APPLICANT: Bryson, James W.
; APPLICANT: Kulesza, Caroline A.
; APPLICANT: Walters, Frederick S.
; APPLICANT: Slatin, Stephen L.
; APPLICANT: Von Tersch, Michael A.
; TITLE OF INVENTION: POLYPEPTIDE COMPOSITIONS TOXIC TO
; COLEOPTERAN INSECTS
; NUMBER OF SEQUENCES: 113
; CORRESPONDENCE ADDRESS:
; ADDRESSEE: Arnold, White & Durkee
; STREET: P.O. Box 4433
; CITY: Houston
; STATE: Texas
; COUNTRY: USA
; ZIP: 77210
; COMPUTER READABLE FORM:
; MEDIUM TYPE: Floppy disk
; COMPUTER: IBM PC compatible
; OPERATING SYSTEM: PC-DOS/MS-DOS
; SOFTWARE: Patent In Release #1.0, Version #1.30
; CURRENT APPLICATION DATA:
; APPLICATION NUMBER: US/08/993,170A
; FILING DATE: 18-DEC-1997
; CLASSIFICATION: 424
; ATTORNEY/AGENT INFORMATION:
; NAME: Kitchell, Barbara S.
; REGISTRATION NUMBER: 33,928
; REFERENCE/DOCKET NUMBER: MECO:002
; TELECOMMUNICATION INFORMATION:
; TELEPHONE: 512/418-3000
; TELEFAX: 512/474-7577
; INFORMATION FOR SEQ ID NO: 14:
; SEQUENCE CHARACTERISTICS:
; LENGTH: 652 amino acids
; TYPE: amino acid
; TOPOLOGY: linear
; MOLECULE TYPE: protein
; US-08-993-170A-14

Query Match 99.9%; Score 3401; DB 3; Length 652;
Best Local Similarity 99.8%; Pred. No. 1.6e-286;
Matches 651; Conservative 0; Mismatches 1; Indels 0; Gaps 0;

Qy 1 MNPNNRSEHDTIKVTPNSELQTNHNYPLADPNSTLEELNYKEFLRMTEDSSTEVLDNS 60
Db 1 MNPNNRSEHDTIKVTPNSELQTNHNYPLADPNSTLEELNYKEFLRMTEDSSTEVLDNS 60
Qy 61 TVKDAVGTGIVGVGQILGVGVGVPFAGALTSPYQSFNTIWPSPADPWKAFMAQVEVLIDK 120
Db 61 TVKDAVGTGIVGVGQILGVGVGVPFAGALTSPYQSFNTIWPSPADPWKAFMAQVEVLIDK 120
Qy 121 KIEEYAKSALAELOQLQNNFEDYVNALNSWKKTPLSLRSKRSQDRIRELFSAQESHFRN 180
Db 121 KIEEYAKSALAELOQLQNNFEDYVNALNSWKKTPLSLRSKRSQDRIRELFSAQESHFRN 180
Qy 181 SMPFAVSKEFVLFLPTYQAANTHLLLLKDAQVFGEEWGYSSSEDAEFYHROKLTKQY 240
Db 181 SMPFAVSKEFVLFLPTYQAANTHLLLLKDAQVFGEEWGYSSSEDAEFYHROKLTKQY 240

Db 181 SMPFAVSKEFVLFLPTYQAANTHLLLLKDAQVFGEEWGYSSSEDAEFYHROKLTKQY 240
Qy 241 TDCVNVNNGVGLRGSTYDAWVKFNRRREMTLVLDLIVLFPFYDILYLSKGVKTEL 300
Db 241 TDCVNVNNGVGLRGSTYDAWVKFNRRREMTLVLDLIVLFPFYDILYLSKGVKTEL 300
Qy 301 TRDIFTDPIFSLNTLQIEYGTFLSIENSIRKPHLFDYLOQIEFHTRLQPCYFGKDSFNYW 360
Db 301 TRDIFTDPIFSLNTLQIEYGTFLSIENSIRKPHLFDYLOQIEFHTRLQPCYFGKDSFNYW 360
Qy 361 SGNVETRPSIGSSKITITSPFYGDKSTPEVKLSFDGQKQYRTIANTDVAWPNKGYLG 420
Db 361 SGNVETRPSIGSSKITITSPFYGDKSTPEVKLSFDGQKQYRTIANTDVAWPNKGYLG 420
Qy 421 VTKVDFSQYDDQKNETSTQYDSKRNGHVSADSIDQLPPETDPLEKAYSHQLNYAE 480
Db 421 VTKVDFSQYDDQKNETSTQYDSKRNGHVSADSIDQLPPETDPLEKAYSHQLNYAE 480
Qy 481 CFLMQDRRGITIPFPTWTHRSVDFPNTIDAEKITQLPVRKAYALSSGASIEGPGFTGGNL 540
Db 481 CFLMQDRRGITIPFPTWTHRSVDFPNTIDAEKITQLPVRKAYALSSGASIEGPGFTGGNL 540
Qy 541 LFLKSSNSIAKFKVTLNSAALLQRYVRIRYASTTNLRLFVQNSNDFLVIYINKTMNK 600
Db 541 LFLKSSNSIAKFKVTLNSAALLQRYVRIRYASTTNLRLFVQNSNDFLVIYINKTMNK 600
Qy 601 DDDLTYQTDFLATNNSMGSGDKNELIIIGAESFVSNKEIYIDKIEFIPVOL 652
Db 601 DDDLTYQTDFLATNNSMGSGDKNELIIIGAESFVSNKEIYIDKIEFIPVOL 652

RESULT 25
US-08-993-775B-14
; Sequence 14, Application US/08993775B
; Patent No. 6077824
; GENERAL INFORMATION:
; APPLICANT: English, Leigh H.
; APPLICANT: Brussock, Susan M.
; APPLICANT: Malvar, Thomas M.
; APPLICANT: Bryson, James W.
; APPLICANT: Kulesza, Caroline A.
; APPLICANT: Walters, Frederick S.
; APPLICANT: Slatin, Stephen L.
; APPLICANT: Von Tersch, Michael A.
; TITLE OF INVENTION: METHODS FOR IMPROVING THE ACTIVITY OF
; DELTA-ENDOTOXINS AGAINST INSECT PESTS
; NUMBER OF SEQUENCES: 113
; CORRESPONDENCE ADDRESS:
; ADDRESSEE: Arnold, White & Durkee
; STREET: P.O. Box 4433
; CITY: Houston
; STATE: Texas
; COUNTRY: USA
; ZIP: 77210
; COMPUTER READABLE FORM:
; MEDIUM TYPE: Floppy disk
; COMPUTER: IBM PC compatible
; OPERATING SYSTEM: PC-DOS/MS-DOS
; SOFTWARE: Patent In Release #1.0, Version #1.30
; CURRENT APPLICATION DATA:
; APPLICATION NUMBER: US/08/993,775B
; FILING DATE: 18-DEC-1997
; CLASSIFICATION: 514
; ATTORNEY/AGENT INFORMATION:
; NAME: Kitchell, Barbara S.
; REGISTRATION NUMBER: 33,928
; REFERENCE/DOCKET NUMBER: MECO:150
; TELECOMMUNICATION INFORMATION:
; TELEPHONE: 512/418-3000
; TELEFAX: 512/474-7577
; INFORMATION FOR SEQ ID NO: 14:
; SEQUENCE CHARACTERISTICS:
; LENGTH: 652 amino acids
```

```
;
; TYPE: amino acid
; TOPOLOGY: linear
; MOLECULE TYPE: protein
US-08-993-775B-14

Query Match      99.9%; Score 3401; DB 3; Length 652;
Best Local Similarity 99.8%; Pred. No. 1.6e-286;
Matches 651; Conservative 0; Mismatches 1; Indels 0; Gaps 0;

QY 1 MNPNNRSEHDTIKVTPNSELOTNHNQYPLADNPSTLEELNYKEFLRMWTSSTSEVLDNS 60
Db 1 MNPNNRSEHDTIKVTPNSELOTNHNQYPLADNPSTLEELNYKEFLRMWTSSTSEVLDNS 60
QY 61 TVKDAVGTSISVVGQILGVGVPPFAGALTSTFYQSFLNTIWPSDADPWKAFMAQVEVLIDK 120
Db 61 TVKDAVGTSISVVGQILGVGVPPFAGALTSTFYQSFLNTIWPSDADPWKAFMAQVEVLIDK 120
QY 121 KIEEYAKSKALAELOGLQNNFEDYVNALNSWKKTPLSLRSKRSQDRIRELFSQAESHFRN 180
Db 121 KIEEYAKSKALAELOGLQNNFEDYVNALNSWKKTPLSLRSKRSQDRIRELFSQAESHFRN 180
QY 181 SMPSPAVSKFEVLFLPTTAAQAANTHLLLLKDAQVFGEEGYSSEDAEFYHRQLKLTQOY 240
Db 181 SMPSPAVSKFEVLFLPTTAAQAANTHLLLLKDAQVFGEEGYSSEDAEFYHRQLKLTQOY 240
QY 241 TDHCVNWNVGLNGLRGSTDYDAWKFNFRFRREMTLTVLDLIVLFPFYDIRLYSGVKTEL 300
Db 241 TDHCVNWNVGLNGLRGSTDYDAWKFNFRFRREMTLTVLDLIVLFPFYDIRLYSGVKTEL 300
QY 301 TRDIFTDPTFSLNTLOEYGPPTFLSIENSIRKPHLFDYLGQIEFHTRLQPGYFGKDSFNYW 360
Db 301 TRDIFTDPTFSLNTLOEYGPPTFLSIENSIRKPHLFDYLGQIEFHTRLQPGYFGKDSFNYW 360
QY 361 SGNVYETREPSIGSSKTIITSPFYGDKSTPEVKLSFDGQKVYRTIANTDVAAPNGKVYLG 420
Db 361 SGNVYETREPSIGSSKTIITSPFYGDKSTPEVKLSFDGQKVYRTIANTDVAAPNGKVYLG 420
QY 421 VTKVDFSQYDDQKNETSTQTYDSKRNGHVSAQDSIDQLPPTTDEPLEKAYSHQNLNVAE 480
Db 421 VTKVDFSQYDDQKNETSTQTYDSKRNGHVSAQDSIDQLPPTTDEPLEKAYSHQNLNVAE 480
QY 481 CFLMDRRGTIPFTTWTHTRSVDFFNTIDAEKITQLPVVKAYALSSGASIEGPGFTGGNL 540
Db 481 CFLMDRRGTIPFTTWTHTRSVDFFNTIDAEKITQLPVVKAYALSSGASIEGPGFTGGNL 540
QY 541 LFLKSSNSIAKPKVTLSAALLQRYVRIRYASTTNLRLFVQNSNNDFLVIYINKTNWK 600
Db 541 LFLKSSNSIAKPKVTLSAALLQRYVRIRYASTTNLRLFVQNSNNDFLVIYINKTNWK 600
QY 601 DDDLTQTDFLATNNSNMFGSGDKNELIIGAESFVSNKEKIYIDKIEFIPVOL 652
Db 601 DDDLTQTDFLATNNSNMFGSGDKNELIIGAESFVSNKEKIYIDKIEFIPVOL 652

RESULT 26
US-09-377-466B-6
; Sequence 6, Application US/09377466B
; Patent No. 6501009
; GENERAL INFORMATION:
; APPLICANT: Romano, Charles P.
; TITLE OF INVENTION: Improved Expression of Cry3Bb Insecticidal Protein in Plants
; FILE REFERENCE: 38-21(15304) Cry3Bb Improved Exp. Corn
; CURRENT APPLICATION NUMBER: US/09/377,466B
; CURRENT FILING DATE: 1999-08-19
; NUMBER OF SEQ ID NOS: 43
; SOFTWARE: PatentIn Ver. 2.0
; SEQ ID NO 6
; LENGTH: 652
; TYPE: PRT
; ORGANISM: Artificial Sequence
; FEATURE:
; OTHER INFORMATION: Description of Artificial Sequence: synthetic or
; OTHER INFORMATION: non-naturally occurring amino acid sequence encoded by SEQ ID NO:
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```
;
; NAME/KEY: PRT
; LOCATION: (1)...(652)
US-09-377-466B-6

Query Match      99.9%; Score 3401; DB 4; Length 652;
Best Local Similarity 99.8%; Pred. No. 1.6e-286;
Matches 651; Conservative 0; Mismatches 1; Indels 0; Gaps 0;

QY 1 MNPNNRSEHDTIKVTPNSELOTNHNQYPLADNPSTLEELNYKEFLRMWTSSTSEVLDNS 60
Db 1 MNPNNRSEHDTIKVTPNSELOTNHNQYPLADNPSTLEELNYKEFLRMWTSSTSEVLDNS 60
QY 61 TVKDAVGTSISVVGQILGVGVPPFAGALTSTFYQSFLNTIWPSDADPWKAFMAQVEVLIDK 120
Db 61 TVKDAVGTSISVVGQILGVGVPPFAGALTSTFYQSFLNTIWPSDADPWKAFMAQVEVLIDK 120
QY 121 KIEEYAKSKALAELOGLQNNFEDYVNALNSWKKTPLSLRSKRSQDRIRELFSQAESHFRN 180
Db 121 KIEEYAKSKALAELOGLQNNFEDYVNALNSWKKTPLSLRSKRSQDRIRELFSQAESHFRN 180
QY 181 SMPSPAVSKFEVLFLPTTAAQAANTHLLLLKDAQVFGEEGYSSEDAEFYHRQLKLTQOY 240
Db 181 SMPSPAVSKFEVLFLPTTAAQAANTHLLLLKDAQVFGEEGYSSEDAEFYHRQLKLTQOY 240
QY 241 TDHCVNWNVGLNGLRGSTDYDAWKFNFRFRREMTLTVLDLIVLFPFYDIRLYSGVKTEL 300
Db 241 TDHCVNWNVGLNGLRGSTDYDAWKFNFRFRREMTLTVLDLIVLFPFYDIRLYSGVKTEL 300
QY 301 TRDIFTDPTFSLNTLOEYGPPTFLSIENSIRKPHLFDYLGQIEFHTRLQPGYFGKDSFNYW 360
Db 301 TRDIFTDPTFSLNTLOEYGPPTFLSIENSIRKPHLFDYLGQIEFHTRLQPGYFGKDSFNYW 360
QY 361 SGNVYETREPSIGSSKTIITSPFYGDKSTPEVKLSFDGQKVYRTIANTDVAAPNGKVYLG 420
Db 361 SGNVYETREPSIGSSKTIITSPFYGDKSTPEVKLSFDGQKVYRTIANTDVAAPNGKVYLG 420
QY 421 VTKVDFSQYDDQKNETSTQTYDSKRNGHVSAQDSIDQLPPTTDEPLEKAYSHQNLNVAE 480
Db 421 VTKVDFSQYDDQKNETSTQTYDSKRNGHVSAQDSIDQLPPTTDEPLEKAYSHQNLNVAE 480
QY 481 CFLMDRRGTIPFTTWTHTRSVDFFNTIDAEKITQLPVVKAYALSSGASIEGPGFTGGNL 540
Db 481 CFLMDRRGTIPFTTWTHTRSVDFFNTIDAEKITQLPVVKAYALSSGASIEGPGFTGGNL 540
QY 541 LFLKSSNSIAKPKVTLSAALLQRYVRIRYASTTNLRLFVQNSNNDFLVIYINKTNWK 600
Db 541 LFLKSSNSIAKPKVTLSAALLQRYVRIRYASTTNLRLFVQNSNNDFLVIYINKTNWK 600
QY 601 DDDLTQTDFLATNNSNMFGSGDKNELIIGAESFVSNKEKIYIDKIEFIPVOL 652
Db 601 DDDLTQTDFLATNNSNMFGSGDKNELIIGAESFVSNKEKIYIDKIEFIPVOL 652

RESULT 27
US-09-427-770-14
; Sequence 14, Application US/09427770
; Patent No. 6620988
; GENERAL INFORMATION:
; APPLICANT: English, Leigh H.
; APPLICANT: Brussock, Susan M.
; APPLICANT: Malvar, Thomas M.
; APPLICANT: Bryson, James W.
; APPLICANT: Kulesza, Caroline A.
; APPLICANT: Walters, Frederick S.
; APPLICANT: Slatin, Stephen L.
; APPLICANT: Von Tersch, Michael A.
; APPLICANT: Romano, Charles
; TITLE OF INVENTION: NUCLEIC ACID SEGMENTS ENCODING MODIFIED
; TITLE OF INVENTION: COLEOPTERAN-TOXIC CRYSTAL PROTEINS
; NUMBER OF SEQUENCES: 113
; CORRESPONDENCE ADDRESS:
; ADDRESSEE: Arnold, White & Durkee
; STREET: P.O. Box 4433
```

City: Houston
STATE: Texas
COUNTRY: USA
ZIP: 77210
COMPUTER READABLE FORM: disk
MEDIUM TYPE: Floppy
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patent In Release #1.0, Version #1.30
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/09/427,770
FILING DATE:
CLASSIFICATION:
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 08/993,722
FILING DATE: 18-DEC-1997
ATTORNEY/AGENT INFORMATION:
NAME: Kitchell, Barbara S.
REGISTRATION NUMBER: 33,928
REFERENCE/DOCKET NUMBER: MECO:149
TELECOMMUNICATION INFORMATION:
TELEPHONE: 512/418-3106
TELEFAX: 512/474-7577
INFORMATION FOR SEQ ID NO: 14:
SEQUENCE CHARACTERISTICS:
LENGTH: 652 amino acids
TYPE: amino acid
TOPOLOGY: linear
MOLECULE TYPE: protein
US-09-427-770-14

Query Match 99.9%; Score 3401; DB 4; Length 652;
Best Local Similarity 99.8%; Pred. No. 1.6e-286;
Matches 651; Conservative 0; Mismatches 1; Indels 0; Gaps 0;

QY 1 MNPNNRSEHDTIKVTNPNSLQTNHNYPLADNPNSLLELNKYKFLRMTEDSSTEVLDS 60
DB 1 MNPNNRSEHDTIKVTNPNSLQTNHNYPLADNPNSLLELNKYKFLRMTEDSSTEVLDS 60
QY 61 TVKDAGVTGIVGVGQILGVVGVPPFAGALTSFYQSFLNTIWPSDADPWKAFMAQVEVLIDK 120
DB 61 TVKDAGVTGIVGVGQILGVVGVPPFAGALTSFYQSFLNTIWPSDADPWKAFMAQVEVLIDK 120
QY 121 KIEEYAKSKALAELOGLQNNFEDYVNALNSWKKTPLSLRSKRSQDRIRLFSQAESHFRN 180
DB 121 KIEEYAKSKALAELOGLQNNFEDYVNALNSWKKTPLSLRSKRSQDRIRLFSQAESHFRN 180
QY 181 SMPSPAVSKFEVLFLPTYAQAANTHLLKDAQVFGEEWGYSSDVAEFYHRQLKLTQY 240
DB 181 SMPSPAVSKFEVLFLPTYAQAANTHLLKDAQVFGEEWGYSSDVAEFYHRQLKLTQY 240
QY 241 TDHCNVNMYNGLRGSTYDAWKFNRRREMTLTVDLIVLPFYDIRLYSKGVKTEL 300
DB 241 TDHCNVNMYNGLRGSTYDAWKFNRRREMTLTVDLIVLPFYDIRLYSKGVKTEL 300
QY 301 TRDIFTDPIFSLNTLOEYGFPLSIENSIRKPHLPDYLOGIEFHTLQPCYFGKDSFNW 360
DB 301 TRDIFTDPIFSLNTLOEYGFPLSIENSIRKPHLPDYLOGIEFHTLQPCYFGKDSFNW 360
QY 361 SGNYVETRPSIGSSKTIITSPFYGDKSTEPVQKLSPDGQKYRTIANTDVAAMPNGKVIYG 420
DB 361 SGNYVETRPSIGSSKTIITSPFYGDKSTEPVQKLSPDGQKYRTIANTDVAAMPNGKVIYG 420
QY 421 VTKVDFSDYDDQNETSTQTYDSKRNNGHVSAQDSIDQLPPETDPLEKAYSHQNLAYE 480
DB 421 VTKVDFSDYDDQNETSTQTYDSKRNNGHVSAQDSIDQLPPETDPLEKAYSHQNLAYE 480
QY 481 CFLMQDRRGTIPIFFTWTHRSVDFNTIDAEKITQLPFWKAYALSSGASIIIEGPGFTGGNL 540
DB 481 CFLMQDRRGTIPIFFTWTHRSVDFNTIDAEKITQLPFWKAYALSSGASIIIEGPGFTGGNL 540
QY 541 LFLKESNSIAKFKVTLNSAALLQRYRVRIRYASTTNLRLFVQNSNDFLVIYINKTMNK 600
DB 541 LFLKESNSIAKFKVTLNSAALLQRYRVRIRYASTTNLRLFVQNSNDFLVIYINKTMNK 600

Db 541 LFLKESNSIAKFKVTLNSAALLQRYRVRIRYASTTNLRLFVQNSNDFLVIYINKTMNK 600
QY 601 DDOLTYQTDFDLATTSNMGFGSGDKNELIIGAESFVSNEXIYIDKIFIPVOL 652
Db 601 DDOLTYQTDFDLATTSNMGFGSGDKNELIIGAESFVSNEXIYIDKIFIPVOL 652

RESULT 28
US-09-427-769-14
Sequence 14, Application US/09427769
Patent No. 6642030
GENERAL INFORMATION:
APPLICANT: English, Leigh H.
APPLICANT: Brussock, Susan M.
APPLICANT: Malvar, Thomas M.
APPLICANT: Bryson, James W.
APPLICANT: Kulesza, Caroline A.
APPLICANT: Walters, Frederick S.
APPLICANT: Slatin, Stephen L.
APPLICANT: Von Tersch, Michael A.
APPLICANT: Romano, Charles
TITLE OF INVENTION: NUCLEIC ACID SEGMENTS ENCODING MODIFIED
TITLE OF INVENTION: COLSOPTERAN-TOXIC CRYSTAL PROTEINS
NUMBER OF SEQUENCES: 113
CORRESPONDENCE ADDRESS:
ADDRESSEE: Arnold, White & Durkee
STREET: P.O. Box 4433
CITY: Houston
STATE: Texas
COUNTRY: USA
ZIP: 77210
COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patent In Release #1.0, Version #1.30
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/09/427,769
FILING DATE:
CLASSIFICATION:
PRIOR APPLICATION DATA:
APPLICATION NUMBER: 08/993,722
FILING DATE:
ATTORNEY/AGENT INFORMATION:
NAME: Kitchell, Barbara S.
REGISTRATION NUMBER: 33,928
REFERENCE/DOCKET NUMBER: MECO:149
TELECOMMUNICATION INFORMATION:
TELEPHONE: 512/418-3106
TELEFAX: 512/474-7577
INFORMATION FOR SEQ ID NO: 14:
SEQUENCE CHARACTERISTICS:
LENGTH: 652 amino acids
TYPE: amino acid
TOPOLOGY: linear
MOLECULE TYPE: protein
US-09-427-769-14

Query Match 99.9%; Score 3401; DB 4; Length 652;
Best Local Similarity 99.8%; Pred. No. 1.6e-286;
Matches 651; Conservative 0; Mismatches 1; Indels 0; Gaps 0;

QY 1 MNPNNRSEHDTIKVTNPNSLQTNHNYPLADNPNSLLELNKYKFLRMTEDSSTEVLDS 60
DB 1 MNPNNRSEHDTIKVTNPNSLQTNHNYPLADNPNSLLELNKYKFLRMTEDSSTEVLDS 60
QY 61 TVKDAGVTGIVGVGQILGVVGVPPFAGALTSFYQSFLNTIWPSDADPWKAFMAQVEVLIDK 120
DB 61 TVKDAGVTGIVGVGQILGVVGVPPFAGALTSFYQSFLNTIWPSDADPWKAFMAQVEVLIDK 120
QY 121 KIEEYAKSKALAELOGLQNNFEDYVNALNSWKKTPLSLRSKRSQDRIRLFSQAESHFRN 180
DB 121 KIEEYAKSKALAELOGLQNNFEDYVNALNSWKKTPLSLRSKRSQDRIRLFSQAESHFRN 180

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; INFORMATION FOR SEQ ID NO: 32:
; SEQUENCE CHARACTERISTICS:
; LENGTH: 652 amino acids
; TYPE: amino acid
; TOPOLOGY: linear
; MOLECULE TYPE: protein
; US-08-996-441B-32

Query Match          99.8%; Score 3400; DB 3; Length 652;
Best Local Similarity 99.8%; Pred. No. 2e-286; 1; Indels 0; Gaps 0;
Matches 651; Conservative 0; Mismatches 1;

Qy 1 MNPNRSEHDTIKVTNSELQTNHNOYPLADNPSTLEELNYKEFLRMTEDSSTVELDNS 60
Db 1 MNPNRSEHDTIKVTNSELQTNHNOYPLADNPSTLEELNYKEFLRMTEDSSTVELDNS 60
Qy 61 TVKDAVGTGSVVQILGVVGVPPAGALTSFYQSFLNTIWPSDADPWKAPMAQVEVLIDK 120
Db 61 TVKDAVGTGSVVQILGVVGVPPAGALTSFYQSFLNTIWPSDADPWKAPMAQVEVLIDK 120
Qy 121 KIBEYAKSKALAEIQLGQNNFEDYVNALNSWKKTPLSLRSKRSDRIRELFSQAESHFRN 180
Db 121 KIBEYAKSKALAEIQLGQNNFEDYVNALNSWKKTPLSLRSKRSDRIRELFSQAESHFRN 180
Qy 181 SMPSFVSKFEVLFLPTYAQAANTHLLLLKDAQVFGGEWGYSSDVAEFYHRQLKLTQOY 240
Db 181 SMPSFVSKFEVLFLPTYAQAANTHLLLLKDAQVFGGEWGYSSDVAEFYHRQLKLTQOY 240
Qy 241 TDHCNVNNGVGLRGSTYDAWKFNRFREMTLTVDLVLVLPFPFYDIRLYSGVKTEL 300
Db 241 TDHCNVNNGVGLRGSTYDAWKFNRFREMTLTVDLVLVLPFPFYDIRLYSGVKTEL 300
Qy 301 TRDIFTDPILNTLQEYGPFTFLSIENSIRKPHLFDYLGIEFTRLPQGVFGKDSFNW 360
Db 301 TRDIFTDPILNTLQEYGPFTFLSIENSIRKPHLFDYLGIEFTRLPQGVFGKDSFNW 360
Qy 361 SGNVYETRPSIGSSKTTITSPFYGDKSTEPVQKLSFDGQKVYRTIANTDVAAPNGKVYL 420
Db 361 SGNVYETRPSIGSSKTTITSPFYGDKSTEPVQKLSFDGQKVYRTIANTDVAAPNGKVYL 420
Qy 421 VTKVDFSQYDDQKNETSTQTYDSKRNGHVSQAQSDIDQLPETTDEPLEKAYSHQLNVAE 480
Db 421 VTKVDFSQYDDQKNETSTQTYDSKRNGHVSQAQSDIDQLPETTDEPLEKAYSHQLNVAE 480
Qy 481 CFLMDRRGTIPFFFTWTHRSVDFNTIDAEEKITQLPVVKAYALSSGASIIEGPGFTGNNL 540
Db 481 CFLMDRRGTIPFFFTWTHRSVDFNTIDAEEKITQLPVVKAYALSSGASIIEGPGFTGNNL 540
Qy 541 LFLKSSNSIAKFKVTLNSAALLQRYRIRYASTTNLRLFVQNSNDFLVIYINKTNWK 600
Db 541 LFLKSSNSIAKFKVTLNSAALLQRYRIRYASTTNLRLFVQNSNDFLVIYINKTNWK 600
Qy 601 DDDLTYQTFDLATNTSNMGFGDKNELIIGAESFVSNEKIYIDKIEFIPVOL 652
Db 601 DDDLTYQTFDLATNTSNMGFGDKNELIIGAESFVSNEKIYIDKIEFIPVOL 652

RESULT 30
US-08-996-441B-48
; Sequence 48, Application US/08996441B
; Patent No. 6023013
; GENERAL INFORMATION:
; APPLICANT: English, Leigh H.
; APPLICANT: Brussock, Susan M.
; APPLICANT: Malvar, Thomas M.
; APPLICANT: Bryson, James W.
; APPLICANT: Kulesza, Caroline A.
; APPLICANT: Walters, Frederick S.
; APPLICANT: Slatin, Stephen L.
; APPLICANT: Von Tersch, Michael A.
; APPLICANT: Romano, Charles
; TITLE OF INVENTION: INSECT-RESISTANT TRANSGENIC PLANTS
; NUMBER OF SEQUENCES: 113
; CORRESPONDENCE ADDRESS:
; ADDRESSEE: Arnold, White & Durkee
; STREET: P.O. Box 4433
; CITY: Houston
; STATE: Texas
; COUNTRY: USA
; ZIP: 77210
; COMPUTER READABLE FORM:
; MEDIUM TYPE: Floppy disk
; COMPUTER: IBM PC compatible
; OPERATING SYSTEM: PC-DOS/MS-DOS
; SOFTWARE: PatentIn Release #1.0, Version #1.30
; CURRENT APPLICATION DATA:
; APPLICATION NUMBER: US/08/996,441B
; FILING DATE: 18-DEC-1997
; CLASSIFICATION: 800
; ATTORNEY/AGENT INFORMATION:
; NAME: Kitchell, Barbara S.
; REGISTRATION NUMBER: 33,928
; REFERENCE/DOCKET NUMBER: MECO:151
; TELECOMMUNICATION INFORMATION:
; TELEPHONE: 512/418-3000
; TELEFAX: 512/474-7577

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/
/ CORRESPONDENCE ADDRESS:
/ ADDRESSEE: Arnold, White & Durkee
/ STREET: P.O. Box 4433
/ CITY: Houston
/ STATE: Texas
/ COUNTRY: USA
/ ZIP: 77210
/
/ COMPUTER READABLE FORM:
/ MEDIUM TYPE: Floppy disk
/ COMPUTER: IBM PC compatible
/ OPERATING SYSTEM: PC-DOS/MS-DOS
/ SOFTWARE: Patentin Release #1.0, Version #1.30
/ CURRENT APPLICATION DATA:
/ APPLICATION NUMBER: US/08/996,441B
/ FILING DATE: 18-DEC-1997
/ CLASSIFICATION: 800
/ ATTORNEY/AGENT INFORMATION:
/ NAME: Kitchell, Barbara S.
/ REGISTRATION NUMBER: 33,928
/ REFERENCE/DOCKET NUMBER: MECO:151
/ TELECOMMUNICATION INFORMATION:
/ TELEPHONE: 512/418-3000
/ TELEFAX: 512/474-7577
/ INFORMATION FOR SEQ ID NO: 48:
/ SEQUENCE CHARACTERISTICS:
/ LENGTH: 652 amino acids
/ TYPE: amino acid
/ TOPOLOGY: linear
/ MOLECULE TYPE: protein
/
/ US-08-996-441B-48
/
/ Query Match 99.8%; Score 3400; DB 3; Length 652;
/ Best Local Similarity 99.7%; Pred. No. 2e-286;
/ Matches 650; Conservative 1; Mismatches 1; Indels 0; Gaps 0;
/
/ QY 1 MNPNNRSEHDTIKVTNSLQTNHNQYPLADNPNSTLEELNYKEFLRMTEDSDSTEVLNDS 60
/ DB 1 MNPNNRSEHDTIKVTNSLQTNHNQYPLADNPNSTLEELNYKEFLRMTEDSDSTEVLNDS 60
/ QY 61 TVKDVGTVGIVVGGQILGVVGPFPAGALTSFYQSFLNTIWPSDADPWKAFMAQVEVLIDK 120
/ DB 61 TVKDVGTVGIVVGGQILGVVGPFPAGALTSFYQSFLNTIWPSDADPWKAFMAQVEVLIDK 120
/ QY 121 KIEEYAKSKALAELOGLQNNFEDYVNALNSWKKTPLSLRSKRSQDRIRELFSQAESHFNRN 180
/ DB 121 KIEEYAKSKALAELOGLQNNFEDYVNALNSWKKTPLSLRSKRSQDRIRELFSQAESHFNRN 180
/ QY 181 SMPFSAVSKFEVLFLPTYAAQAAANTHLLKDAQVFGEEGYSSDVAEFYHROLKLTQQY 240
/ DB 181 SMPFSAVSKFEVLFLPTYAAQAAANTHLLKDAQVFGEEGYSSDVAEFYHROLKLTQQY 240
/ QY 241 TDHCVNMYNGLNGLRGSTDVAVKFNRRREMTLTVLDLVLFPFYDIRLYSKGVKTEL 300
/ DB 241 TDHCVNMYNGLNGLRGSTDVAVKFNRRREMTLTVLDLVLFPFYDIRLYSKGVKTEL 300
/ QY 301 TRDIFTDPIFSLNTLOEYGTFLSIENSIRKPHLPDYLOGIEPHTRLQPGYFGKDSFNWY 360
/ DB 301 TRDIFTDPIFSLNTLOEYGTFLSIENSIRKPHLPDYLOGIEPHTRLQPGYFGKDSFNWY 360
/ QY 361 SGNYVETRPSIGSKTITSPFYGDKSTPEPVQKLSFDGQKVYRTIANTDVAAMPNGKVYLG 420
/ DB 361 SGNYVETRPSIGSKTITSPFYGDKSTPEPVQKLSFDGQKVYRTIANTDVAAMPNGKVYLG 420
/ QY 421 VTKVDFSQYDDQKNETSTQYDSKRNGHVSAQDSIDQLPPTTDEPLEKAYSHQLNYAE 480
/ DB 421 VTKVDFSQYDDQKNETSTQYDSKRNGHVSAQDSIDQLPPTTDEPLEKAYSHQLNYAE 480
/ QY 481 CFLMQDRRGITPFTWTHRSVDFNTIDAEKITQLPVKAYALSSGASIIIEGPGFTGGNL 540
/ DB 481 CFLMQDRRGITPFTWTHRSVDFNTIDAEKITQLPVKAYALSSGASIIIEGPGFTGGNL 540
/ QY 541 LFLKSSNSIAKPKVTLSAALLQRYVRIRYASTTNLRLFVQNSNNDFLVIYINKTMNK 600
/ DB 541 LFLKSSNSIAKPKVTLSAALLQRYVRIRYASTTNLRLFVQNSNNDFLVIYINKTMNK 600
/
/ QY 601 DDDLTYYQTDFDLATTSNMGFSGDKNELIIGAESFVSNKEIYIDKIEFIPVOL 652
/ DB 601 DDDLTYYQTDFDLATTSNMGFSGDKNELIIGAESFVSNKEIYIDKIEFIPVOL 652
/
/ RESULT 31
/ US-08-993-722A-32
/ Sequence 32, Application US/08993722A
/ Patent No. 6060594
/ GENERAL INFORMATION:
/ APPLICANT: English, Leigh H.
/ APPLICANT: Brussock, Susan M.
/ APPLICANT: Malvar, Thomas M.
/ APPLICANT: Bryson, James W.
/ APPLICANT: Kulesza, Caroline A.
/ APPLICANT: Walters, Frederick S.
/ APPLICANT: Slatin, Stephen L.
/ APPLICANT: Von Tersch, Michael A.
/ APPLICANT: Romano, Charles
/ TITLE OF INVENTION: NUCLEIC ACID SEGMENTS ENCODING MODIFIED
/ TITLE OF INVENTION: COLEOPTERAN-TOXIC CRYSTAL PROTEINS
/ NUMBER OF SEQUENCES: 113
/ CORRESPONDENCE ADDRESS:
/ ADDRESSEE: Arnold, White & Durkee
/ STREET: P.O. Box 4433
/ CITY: Houston
/ STATE: Texas
/ COUNTRY: USA
/ ZIP: 77210
/
/ COMPUTER READABLE FORM:
/ MEDIUM TYPE: Floppy disk
/ COMPUTER: IBM PC compatible
/ OPERATING SYSTEM: PC-DOS/MS-DOS
/ SOFTWARE: Patentin Release #1.0, Version #1.30
/ CURRENT APPLICATION DATA:
/ APPLICATION NUMBER: US/08/993,722A
/ FILING DATE: 18-DEC-1997
/ CLASSIFICATION: 435
/ ATTORNEY/AGENT INFORMATION:
/ NAME: Kitchell, Barbara S.
/ REGISTRATION NUMBER: 33,928
/ REFERENCE/DOCKET NUMBER: MECO:149
/ TELECOMMUNICATION INFORMATION:
/ TELEPHONE: 512/418-3106
/ TELEFAX: 512/474-7577
/ INFORMATION FOR SEQ ID NO: 32:
/ SEQUENCE CHARACTERISTICS:
/ LENGTH: 652 amino acids
/ TYPE: amino acid
/ TOPOLOGY: linear
/ MOLECULE TYPE: protein
/
/ US-08-993-722A-32
/
/ Query Match 99.8%; Score 3400; DB 3; Length 652;
/ Best Local Similarity 99.8%; Pred. No. 2e-286;
/ Matches 651; Conservative 0; Mismatches 1; Indels 0; Gaps 0;
/
/ QY 1 MNPNNRSEHDTIKVTNSLQTNHNQYPLADNPNSTLEELNYKEFLRMTEDSDSTEVLNDS 60
/ DB 1 MNPNNRSEHDTIKVTNSLQTNHNQYPLADNPNSTLEELNYKEFLRMTEDSDSTEVLNDS 60
/ QY 61 TVKDVGTVGIVVGGQILGVVGPFPAGALTSFYQSFLNTIWPSDADPWKAFMAQVEVLIDK 120
/ DB 61 TVKDVGTVGIVVGGQILGVVGPFPAGALTSFYQSFLNTIWPSDADPWKAFMAQVEVLIDK 120
/ QY 121 KIEEYAKSKALAELOGLQNNFEDYVNALNSWKKTPLSLRSKRSQDRIRELFSQAESHFNRN 180
/ DB 121 KIEEYAKSKALAELOGLQNNFEDYVNALNSWKKTPLSLRSKRSQDRIRELFSQAESHFNRN 180
/ QY 181 SMPFSAVSKFEVLFLPTYAAQAAANTHLLKDAQVFGEEGYSSDVAEFYHROLKLTQQY 240
/ DB 181 SMPFSAVSKFEVLFLPTYAAQAAANTHLLKDAQVFGEEGYSSDVAEFYHROLKLTQQY 240
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Db 181 SMPFAVSKFEVLFLPTVAQAANTHLLLLKDAQVGEWGYSSDVAEFYHRQLKLTQQY 240
QY 241 TDHCVNWNVGLNGLRGSTDYDAWKFNFRFRREMTLVLDLVLVLPFFYDRLYSKGVKTEL 300
Db 241 TDHCVNWNVGLNGLRGSTDYDAWKFNFRFRREMTLVLDLVLVLPFFYDRLYSKGVKTEL 300
QY 301 TRDIFTDPIFSLNTLQEGYPTFLSLIENIRKPHLFDYLOQIEFHTRLQPGYFGKDSFNW 360
Db 301 TRDIFTDPIFSLNTLQEGYPTFLSLIENIRKPHLFDYLOQIEFHTRLQPGYFGKDSFNW 360
QY 361 SGNVETRPSIGSSKTTITSPFYGDKSTPEVOKLSFDGQKVYRTTANTDVAAPNGKVYLG 420
Db 361 SGNVETRPSIGSSKTTITSPFYGDKSTPEVOKLSFDGQKVYRTTANTDVAAPNGKVYLG 420
QY 421 VTKVDFSQYDDQKNETSTQTYDSKRNNGHVSAQDSIDQLPETTDEPLEKAYSHQLNVAE 480
Db 421 VTKVDFSQYDDQKNETSTQTYDSKRNNGHVSAQDSIDQLPETTDEPLEKAYSHQLNVAE 480
QY 481 CFLMDRRGTIPFPTWTHRSVDFFNTIDAOKITQLPVVKAYALSSGASIIISGPGFTGNL 540
Db 481 CFLMDRRGTIPFPTWTHRSVDFFNTIDAOKITQLPVVKAYALSSGASIIISGPGFTGNL 540
QY 541 LFLKSSNSIAKPKVTLNSAALLQRYRVRIRYASTTNLRLFVQNSNDFLVIYINKTMNK 600
Db 541 LFLKSSNSIAKPKVTLNSAALLQRYRVRIRYASTTNLRLFVQNSNDFLVIYINKTMNK 600
QY 601 DDLTYQTFLDATTNSNMFGSGDKNELIIGAESFVSNKEIYIDKIEFIPVQL 652
Db 601 DDLTYQTFLDATTNSNMFGSGDKNELIIGAESFVSNKEIYIDKIEFIPVQL 652

RESULT 32
US-08-993-722A-48
; Sequence 48, Application US/08993722A
; Patent No. 6060594
; GENERAL INFORMATION:
; APPLICANT: English, Leigh H.
; APPLICANT: Brussock, Susan M.
; APPLICANT: Malvar, Thomas M.
; APPLICANT: Bryson, James W.
; APPLICANT: Kulesza, Caroline A.
; APPLICANT: Walters, Frederick S.
; APPLICANT: Slatin, Stephen L.
; APPLICANT: Von Tersch, Michael A.
; APPLICANT: Romano, Charles
; TITLE OF INVENTION: NUCLEIC ACID SEGMENTS ENCODING MODIFIED
; TITLE OF INVENTION: COLEOPTERAN-TOXIC CRYSTAL PROTEINS
; NUMBER OF SEQUENCES: 113
; CORRESPONDENCE ADDRESS:
; ADDRESSEE: Arnold, White & Durkee
; STREET: P.O. Box 4433
; CITY: Houston
; STATE: Texas
; COUNTRY: USA
; ZIP: 77210
; COMPUTER READABLE FORM:
; MEDIUM TYPE: Floppy disk
; COMPUTER: IBM PC compatible
; OPERATING SYSTEM: PC-DOS/MS-DOS
; SOFTWARE: Patent In Release #1.0, Version #1.30
; CURRENT APPLICATION DATA:
; APPLICATION NUMBER: US/08/993,722A
; FILING DATE: 18-DEC-1997
; CLASSIFICATION: 435
; ATTORNEY/AGENT INFORMATION:
; NAME: Kitchell, Barbara S.
; REGISTRATION NUMBER: 33,928
; REFERENCE/DOCKET NUMBER: MECO:149
; TELECOMMUNICATION INFORMATION:
; TELEPHONE: 512/418-3106
; TELEFAX: 512/474-7577
; INFORMATION FOR SEQ ID NO: 48:
; SEQUENCE CHARACTERISTICS:

; LENGTH: 652 amino acids
; TYPE: amino acid
; TOPOLOGY: linear
; MOLECULE TYPE: protein
; US-08-993-722A-48
Query Match 99.8%; Score 3400; DB 3; Length 652;
Best Local Similarity 99.7%; Pred. No. 2e-286;
Matches 650; Conservative 1; Mismatches 1; Indels 0; Gaps 0;
QY 1 MNPNNRSEHTTIKVTNPSELQTHNQYPLADPNSTLEELNYKEFLRMTSDSDEVLDNS 60
Db 1 MNPNNRSEHTTIKVTNPSELQTHNQYPLADPNSTLEELNYKEFLRMTSDSDEVLDNS 60
QY 61 TVKDAVCTGTSVVGQILGVGVFPAGALTTSFYQSFLNTIWPSDADPKAPMAQVEVLIDK 120
Db 61 TVKDAVCTGTSVVGQILGVGVFPAGALTTSFYQSFLNTIWPSDADPKAPMAQVEVLIDK 120
QY 121 KIEEYAKSKALAEIQLQNNFEDYVNALNSWKKTPLSLRSKRSQDRIRELFSQAESHFNR 180
Db 121 KIEEYAKSKALAEIQLQNNFEDYVNALNSWKKTPLSLRSKRSQDRIRELFSQAESHFNR 180
QY 181 SMPFAVSKFEVLFLPTVAQAANTHLLLLKDAQVGEWGYSSDVAEFYHRQLKLTQQY 240
Db 181 SMPFAVSKFEVLFLPTVAQAANTHLLLLKDAQVGEWGYSSDVAEFYHRQLKLTQQY 240
QY 241 TDHCVNWNVGLNGLRGSTDYDAWKFNFRFRREMTLVLDLVLVLPFFYDRLYSKGVKTEL 300
Db 241 TDHCVNWNVGLNGLRGSTDYDAWKFNFRFRREMTLVLDLVLVLPFFYDRLYSKGVKTEL 300
QY 301 TRDIFTDPIFSLNTLQEGYPTFLSLIENIRKPHLFDYLOQIEFHTRLQPGYFGKDSFNW 360
Db 301 TRDIFTDPIFSLNTLQEGYPTFLSLIENIRKPHLFDYLOQIEFHTRLQPGYFGKDSFNW 360
QY 361 SGNVETRPSIGSSKTTITSPFYGDKSTPEVOKLSFDGQKVYRTTANTDVAAPNGKVYLG 420
Db 361 SGNVETRPSIGSSKTTITSPFYGDKSTPEVOKLSFDGQKVYRTTANTDVAAPNGKVYLG 420
QY 421 VTKVDFSQYDDQKNETSTQTYDSKRNNGHVSAQDSIDQLPETTDEPLEKAYSHQLNVAE 480
Db 421 VTKVDFSQYDDQKNETSTQTYDSKRNNGHVSAQDSIDQLPETTDEPLEKAYSHQLNVAE 480
QY 481 CFLMDRRGTIPFPTWTHRSVDFFNTIDAOKITQLPVVKAYALSSGASIIISGPGFTGNL 540
Db 481 CFLMDRRGTIPFPTWTHRSVDFFNTIDAOKITQLPVVKAYALSSGASIIISGPGFTGNL 540
QY 541 LFLKSSNSIAKPKVTLNSAALLQRYRVRIRYASTTNLRLFVQNSNDFLVIYINKTMNK 600
Db 541 LFLKSSNSIAKPKVTLNSAALLQRYRVRIRYASTTNLRLFVQNSNDFLVIYINKTMNK 600
QY 601 DDLTYQTFLDATTNSNMFGSGDKNELIIGAESFVSNKEIYIDKIEFIPVQL 652
Db 601 DDLTYQTFLDATTNSNMFGSGDKNELIIGAESFVSNKEIYIDKIEFIPVQL 652

RESULT 33
US-08-993-170A-32
; Sequence 32, Application US/08993170A
; Patent No. 6063597
; GENERAL INFORMATION:
; APPLICANT: English, Leigh H.
; APPLICANT: Brussock, Susan M.
; APPLICANT: Malvar, Thomas M.
; APPLICANT: Bryson, James W.
; APPLICANT: Kulesza, Caroline A.
; APPLICANT: Walters, Frederick S.
; APPLICANT: Slatin, Stephen L.
; APPLICANT: Von Tersch, Michael A.
; TITLE OF INVENTION: POLYPEPTIDE COMPOSITIONS TOXIC TO
; TITLE OF INVENTION: COLEOPTERAN INSECTS
; NUMBER OF SEQUENCES: 113
; CORRESPONDENCE ADDRESS:
; ADDRESSEE: Arnold, White & Durkee

STREET: P.O. Box 4433
CITY: Houston
STATE: Texas
COUNTRY: USA
ZIP: 77210
COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0, Version #1.30
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/993,170A
FILING DATE: 18-DEC-1997
CLASSIFICATION: 424
ATTORNEY/AGENT INFORMATION:
NAME: Kitchell, Barbara S.
REGISTRATION NUMBER: 33,928
REFERENCE/DOCKET NUMBER: MECO:002
TELECOMMUNICATION INFORMATION:
TELEPHONE: 512/418-3000
TELEFAX: 512/474-7577
INFORMATION FOR SEQ ID NO: 32:
SEQUENCE CHARACTERISTICS:
LENGTH: 652 amino acids
TYPE: amino acid
TOPOLOGY: linear
MOLECULE TYPE: protein
US-08-993-170A-32

Query Match 99.8%; Score 3400; DB 3; Length 652;
Best Local Similarity 99.8%; Pred. No. 2e-286;
Matches 651; Conservative 0; Mismatches 1; Indels 0; Gaps 0;

QY	1	MNPNNSEHDTIKVTNPSELQTHNQYPLADNPSTLEELNYKEFLRMTEDSSTEVLDS	60
DB	1	MNPNNSEHDTIKVTNPSELQTHNQYPLADNPSTLEELNYKEFLRMTEDSSTEVLDS	60
QY	61	TVKDVGVTGIVGVQILGVVGVFPFAGALTSTFYQSLNTIWPSPDADPWKAFMAQVEVLIDK	120
DB	61	TVKDVGVTGIVGVQILGVVGVFPFAGALTSTFYQSLNTIWPSPDADPWKAFMAQVEVLIDK	120
QY	121	KIEEYAKSKALAEQLQNNFEDYVNALNSWKKTPLSLRSKRSQDRIRSELFSAESHFRN	180
DB	121	KIEEYAKSKALAEQLQNNFEDYVNALNSWKKTPLSLRSKRSQDRIRSELFSAESHFRN	180
QY	181	SMPSFAVSKFEVLFLPTYAQAANTHLLILKDAQVFGEEWGYSSDYAEFVHROLKLTQY	240
DB	181	SMPSFAVSKFEVLFLPTYAQAANTHLLILKDAQVFGEEWGYSSDYAEFVHROLKLTQY	240
QY	241	TDHCNVNWNVGLNGLRGSTYDAWVKFNRRPREMTLTVDLIVLFPFYDIRLSKGVKTEL	300
DB	241	TDHCNVNWNVGLNGLRGSTYDAWVKFNRRPREMTLTVDLIVLFPFYDIRLSKGVKTEL	300
QY	301	TRDIFTDPIFSLNTLQEGPTFLSIENIRKPHLFDYLOGIEPHTRLQPCYFGKDSFNW	360
DB	301	TRDIFTDPIFSLNTLQEGPTFLSIENIRKPHLFDYLOGIEPHTRLQPCYFGKDSFNW	360
QY	361	SGNYVETRSIGSSKTIISPFYGDKSTEPVKLSFDGQKYRTIANTDVAAMPNGKVYLG	420
DB	361	SGNYVETRSIGSSKTIISPFYGDKSTEPVKLSFDGQKYRTIANTDVAAMPNGKVYLG	420
QY	421	VTKVDFSPQDDQKNETSTQYDSKRNGHVSQAQSDIDQLPPTTDEPLEKAYSHOLNYAE	480
DB	421	VTKVDFSPQDDQKNETSTQYDSKRNGHVSQAQSDIDQLPPTTDEPLEKAYSHOLNYAE	480
QY	481	CFLMQDRRGITPFTWTHRSVDFNTIDAETIQLPVPVKAAYLSSGASIEEGPFTGGNL	540
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QY	541	LFLKSSNSIAKPKVTLNSAALLQRYRIRYASTTNLRLFVQNSNDFLVIYINKTMNK	600
DB	541	LFLKSSNSIAKPKVTLNSAALLQRYRIRYASTTNLRLFVQNSNDFLVIYINKTMNK	600

QY 601 DDDLTYQTDFLATNTNSNMFGSKNELIIGAESFVSNEKIYIDKIEFIPVOL 652
DB 601 DDDLTYQTDFLATNTNSNMFGSKNELIIGAESFVSNEKIYIDKIEFIPVOL 652
RESULT 34
US-08-993-170A-48
Sequence 48, Application US/08993170A
Patent No. 6063597
GENERAL INFORMATION:
APPLICANT: English, Leigh H.
APPLICANT: Brussock, Susan M.
APPLICANT: Malvar, Thomas M.
APPLICANT: Bryson, James W.
APPLICANT: Kulesza, Caroline A.
APPLICANT: Walters, Frederick S.
APPLICANT: Slatin, Stephen L.
APPLICANT: Von Tersch, Michael A.
TITLE OF INVENTION: POLYPEPTIDE COMPOSITIONS TOXIC TO
NUMBER OF SEQUENCES: 113
CORRESPONDENCE ADDRESS:
ADDRESSEE: Arnold, White & Durkee
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CITY: Houston
STATE: Texas
COUNTRY: USA
ZIP: 77210
COMPUTER READABLE FORM:
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OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0, Version #1.30
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CLASSIFICATION: 424
ATTORNEY/AGENT INFORMATION:
NAME: Kitchell, Barbara S.
REGISTRATION NUMBER: 33,928
REFERENCE/DOCKET NUMBER: MECO:002
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TELEFAX: 512/474-7577
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TYPE: amino acid
TOPOLOGY: linear
MOLECULE TYPE: protein
US-08-993-170A-48

Query Match 99.8%; Score 3400; DB 3; Length 652;
Best Local Similarity 99.7%; Pred. No. 2e-286;
Matches 650; Conservative 1; Mismatches 1; Indels 0; Gaps 0;

QY	1	MNPNNSEHDTIKVTNPSELQTHNQYPLADNPSTLEELNYKEFLRMTEDSSTEVLDS	60
DB	1	MNPNNSEHDTIKVTNPSELQTHNQYPLADNPSTLEELNYKEFLRMTEDSSTEVLDS	60
QY	61	TVKDVGVTGIVGVQILGVVGVFPFAGALTSTFYQSLNTIWPSPDADPWKAFMAQVEVLIDK	120
DB	61	TVKDVGVTGIVGVQILGVVGVFPFAGALTSTFYQSLNTIWPSPDADPWKAFMAQVEVLIDK	120
QY	121	KIEEYAKSKALAEQLQNNFEDYVNALNSWKKTPLSLRSKRSQDRIRSELFSAESHFRN	180
DB	121	KIEEYAKSKALAEQLQNNFEDYVNALNSWKKTPLSLRSKRSQDRIRSELFSAESHFRN	180
QY	181	SMPSFAVSKFEVLFLPTYAQAANTHLLILKDAQVFGEEWGYSSDYAEFVHROLKLTQY	240
DB	181	SMPSFAVSKFEVLFLPTYAQAANTHLLILKDAQVFGEEWGYSSDYAEFVHROLKLTQY	240
QY	241	TDHCNVNWNVGLNGLRGSTYDAWVKFNRRPREMTLTVDLIVLFPFYDIRLSKGVKTEL	300

Tue Feb 15 13:16:10 2005

Db 241 TDHCNVNVLNGLRGSTYDAWKFRFRREMTLTVDLILVLPFFVDVRLYKGVKTEL 300
Qy 301 TRDIFTDPIFSLNLTLOEYGPFTFLSIENSIKPKHFLDYLOGIEPHTRLOPGYFGKGSFNW 360
Db 301 TRDIFTDPIFSLNLTLOEYGPFTFLSIENSIKPKHFLDYLOGIEPHTRLOPGYFGKGSFNW 360
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Db 361 SGNVYETRPSIGSSKTIITSPFYGDKSTPEPVOKLSFDGQKVYRTIANTDVAAPNGKVYLG 420
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Qy 481 CFLMDRRGTIPFTTWTHTSRVDFNTIDAETITQLPVVKAYALSSGASIIIEGPGFTGNL 540
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Db 541 LFLKSSNSIAKFKVTLNSAALLQRYVRIRYASTTNLRLFVQNSNNDFLVIYINKTMNK 600
Qy 601 DDDLTYTQTFDLATTNSNMGFGDKNELIIGAESSFVSNEKIYIDKIEFIPVOL 652
Db 601 DDDLTYTQTFDLATTNSNMGFGDKNELIIGAESSFVSNEKIYIDKIEFIPVOL 652

RESULT 35
US-08-993-775B-32
; Sequence 32, Application US/08993775B
; Patent No. 6077824
; GENERAL INFORMATION:
; APPLICANT: English, Leigh H.
; APPLICANT: Brussock, Susan M.
; APPLICANT: Malvar, Thomas M.
; APPLICANT: Bryson, James W.
; APPLICANT: Kulesza, Caroline A.
; APPLICANT: Walters, Frederick S.
; APPLICANT: Slatin, Stephen L.
; APPLICANT: Von Tersch, Michael A.
; TITLE OF INVENTION: METHODS FOR IMPROVING THE ACTIVITY OF
; TITLE OF INVENTION: DELTA-ENDOTOXINS AGAINST INSECT PESTS
; NUMBER OF SEQUENCES: 113
; CORRESPONDENCE ADDRESS:
; ADDRESSEE: Arnold, White & Durkee
; STREET: P.O. Box 4433
; CITY: Houston
; STATE: Texas
; COUNTRY: USA
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; SOFTWARE: Patent in Release #1.0, Version #1.30
; CURRENT APPLICATION DATA: US/08/993,775B
; FILING DATE: 18-DEC-1997
; CLASSIFICATION: 514
; ATTORNEY/AGENT INFORMATION:
; NAME: Kitchell, Barbara S.
; REGISTRATION NUMBER: 33,928
; REFERENCE/DOCKET NUMBER: MECO:150
; TELECOMMUNICATION INFORMATION:
; TELEPHONE: 512/418-3000
; TELEFAX: 512/474-7577
; INFORMATION FOR SEQ ID NO: 32:
; SEQUENCE CHARACTERISTICS:
; LENGTH: 652 amino acids
; TYPE: amino acid
; TOPOLOGY: linear
; MOLECULE TYPE: protein

US-08-993-775B-32
Query Match 99.8%; Score 3400; DB 3; Length 652;
Best Local Similarity 99.8%; Pred. No. 2e-286;
Matches 651; Conservative 0; Mismatches 1; Indels 0; Gaps 0;
Qy 1 MNPNRSEHDTIKVTPNSELOTNNHNOYPLADNPNTLLEELNYKSEFLRMTEDSSTEVLDNS 60
Db 1 MNPNRSEHDTIKVTPNSELOTNNHNOYPLADNPNTLLEELNYKSEFLRMTEDSSTEVLDNS 60
Qy 61 TVKDAVGITGISVVGQILGVGVVFPFAGALTSFYQSFLNTIWFSDADPWKAFMAQVEVLIDK 120
Db 61 TVKDAVGITGISVVGQILGVGVVFPFAGALTSFYQSFLNTIWFSDADPWKAFMAQVEVLIDK 120
Qy 121 KIEEYAKSALAELOGLQNNFEDYVNALNSWKKTPLSLRSKRSQDRIRELFSQAESHFRN 180
Db 121 KIEEYAKSALAELOGLQNNFEDYVNALNSWKKTPLSLRSKRSQDRIRELFSQAESHFRN 180
Qy 181 SMPSPAVSKFEVLFLPTVYAAANTHLLLLKDAQVGEWGYSSSDVAFYHRLKLTQY 240
Db 181 SMPSPAVSKFEVLFLPTVYAAANTHLLLLKDAQVGEWGYSSSDVAFYHRLKLTQY 240
Qy 241 TDHCNVNVLNGLRGSTYDAWKFRFRREMTLTVDLILVLPFFVDVRLYKGVKTEL 300
Db 241 TDHCNVNVLNGLRGSTYDAWKFRFRREMTLTVDLILVLPFFVDVRLYKGVKTEL 300
Qy 301 TRDIFTDPIFSLNLTLOEYGPFTFLSIENSIKPKHFLDYLOGIEPHTRLOPGYFGKGSFNW 360
Db 301 TRDIFTDPIFSLNLTLOEYGPFTFLSIENSIKPKHFLDYLOGIEPHTRLOPGYFGKGSFNW 360
Qy 361 SGNVYETRPSIGSSKTIITSPFYGDKSTPEPVOKLSFDGQKVYRTIANTDVAAPNGKVYLG 420
Db 361 SGNVYETRPSIGSSKTIITSPFYGDKSTPEPVOKLSFDGQKVYRTIANTDVAAPNGKVYLG 420
Qy 421 VTKVDFSOYDDQKNETSTQYDSKRNNGHVSAQDSIDQLPETTDEPLEKAYSHQNLN 480
Db 421 VTKVDFSOYDDQKNETSTQYDSKRNNGHVSAQDSIDQLPETTDEPLEKAYSHQNLN 480
Qy 481 CFLMDRRGTIPFTTWTHTSRVDFNTIDAETITQLPVVKAYALSSGASIIIEGPGFTGNL 540
Db 481 CFLMDRRGTIPFTTWTHTSRVDFNTIDAETITQLPVVKAYALSSGASIIIEGPGFTGNL 540
Qy 541 LFLKSSNSIAKFKVTLNSAALLQRYVRIRYASTTNLRLFVQNSNNDFLVIYINKTMNK 600
Db 541 LFLKSSNSIAKFKVTLNSAALLQRYVRIRYASTTNLRLFVQNSNNDFLVIYINKTMNK 600
Qy 601 DDDLTYTQTFDLATTNSNMGFGDKNELIIGAESSFVSNEKIYIDKIEFIPVOL 652
Db 601 DDDLTYTQTFDLATTNSNMGFGDKNELIIGAESSFVSNEKIYIDKIEFIPVOL 652

RESULT 36
US-08-993-775B-48
; Sequence 48, Application US/08993775B
; Patent No. 6077824
; GENERAL INFORMATION:
; APPLICANT: English, Leigh H.
; APPLICANT: Brussock, Susan M.
; APPLICANT: Malvar, Thomas M.
; APPLICANT: Bryson, James W.
; APPLICANT: Kulesza, Caroline A.
; APPLICANT: Walters, Frederick S.
; APPLICANT: Slatin, Stephen L.
; APPLICANT: Von Tersch, Michael A.
; TITLE OF INVENTION: METHODS FOR IMPROVING THE ACTIVITY OF
; TITLE OF INVENTION: DELTA-ENDOTOXINS AGAINST INSECT PESTS
; NUMBER OF SEQUENCES: 113
; CORRESPONDENCE ADDRESS:
; ADDRESSEE: Arnold, White & Durkee
; STREET: P.O. Box 4433
; CITY: Houston
; STATE: Texas
; COUNTRY: USA


```

; ZIP: 77210
; COMPUTER READABLE FORM:
; MEDIUM TYPE: Floppy disk
; COMPUTER: IBM PC compatible
; OPERATING SYSTEM: PC-DOS/MS-DOS
; SOFTWARE: Patentin Release #1.0, Version #1.30
; CURRENT APPLICATION DATA:
; APPLICATION NUMBER: US/08/993,775B
; FILING DATE: 18-DEC-1997
; CLASSIFICATION: 514
; ATTORNEY/AGENT INFORMATION:
; NAME: Kitchell, Barbara S.
; REGISTRATION NUMBER: 33,928
; REFERENCE/DOCKET NUMBER: MECO:150
; TELECOMMUNICATION INFORMATION:
; TELEPHONE: 512/418-3000
; TELEFAX: 512/474-7577
; INFORMATION FOR SEQ ID NO: 48:
; SEQUENCE CHARACTERISTICS:
; LENGTH: 652 amino acids
; TYPE: amino acid
; TOPOLOGY: linear
; MOLECULE TYPE: protein
; US-08-993-775B-48

Query Match          99.8%; Score 3400; DB 3; Length 652;
Best Local Similarity 99.7%; Pred. No. 2e-286;
Matches 650; Conservative 1; Mismatches 1; Indels 0; Gaps 0;

Qy 1 MNPNNRSEHDTIKVTNPSELQTNHNQYPLADNPNSTLEELNYKEFLRMTESSSTEVLNLS 60
Db 1 MNPNNRSEHDTIKVTNPSELQTNHNQYPLADNPNSTLEELNYKEFLRMTESSSTEVLNLS 60
Qy 61 TVKDAVGTGIVSVVQILGVVGVFPAGALTSFYQSFNTIWPSPDADPKAFMAQVEVLIDK 120
Db 61 TVKDAVGTGIVSVVQILGVVGVFPAGALTSFYQSFNTIWPSPDADPKAFMAQVEVLIDK 120
Qy 121 KIEEYAKSKALAELOGLQNNFEDYVNALNSWKKTPLSLRSKRSQDRIRLFSQAESHFRN 180
Db 121 KIEEYAKSKALAELOGLQNNFEDYVNALNSWKKTPLSLRSKRSQDRIRLFSQAESHFRN 180
Qy 181 SMPFSAVSKFEVLFLPTYAQAANTHLLLLKDAQVFGEEWGYSSDVAEFYHRQLKLTQY 240
Db 181 SMPFSAVSKFEVLFLPTYAQAANTHLLLLKDAQVFGEEWGYSSDVAEFYHRQLKLTQY 240
Qy 241 TDHCVNWYVGLNGLRGSTDYDAWKENRFRREMTLTVLDLVLFPFVDRLYSKGVKTEL 300
Db 241 TDHCVNWYVGLNGLRGSTDYDAWKENRFRREMTLTVLDLVLFPFVDRLYSKGVKTEL 300
Qy 301 TRDIFTDPIFSLNTLOEYGTFLSIENSIRKPHLFDYLOQIEPHTRLQPGYFGKDSFNW 360
Db 301 TRDIFTDPIFSLNTLOEYGTFLSIENSIRKPHLFDYLOQIEPHTRLQPGYFGKDSFNW 360
Qy 361 SGNYVTRPSIGSKTITSPYGDKSTPEVQKLSFDGQKYVRTIANTDVAAMPNGKYVLG 420
Db 361 SGNYVTRPSIGSKTITSPYGDKSTPEVQKLSFDGQKYVRTIANTDVAAMPNGKYVLG 420
Qy 421 VTKVDFSOYDDQKNETSTQYDSKRNGHVSADSDIDLPETTDPELKAYSHQLNYAE 480
Db 421 VTKVDFSOYDDQKNETSTQYDSKRNGHVSADSDIDLPETTDPELKAYSHQLNYAE 480
Qy 481 CFLMQDRRGITPFTTTHRSVDPFNTIDAEKITQLPVPVKAYALSSGASIIIEGPGFTGGNL 540
Db 481 CFLMQDRRGITPFTTTHRSVDPFNTIDAEKITQLPVPVKAYALSSGASIIIEGPGFTGGNL 540
Qy 541 LFLKESNSIAKPKVTLNSAALLQRYRVRIRYASTNLRFLVQNSNNDFLVIYINKTMK 600
Db 541 LFLKESNSIAKPKVTLNSAALLQRYRVRIRYASTNLRFLVQNSNNDFLVIYINKTMK 600
Qy 601 DDLTQTFTLATNSNMGFSGDKNELIIIGAESFVSNEKIYIDKIEPIPVOL 652
Db 601 DDLTQTFTLATNSNMGFSGDKNELIIIGAESFVSNEKIYIDKIEPIPVOL 652
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RESULT 37
US-09-427-770-32
; Sequence 32, Application US/09427770
; Patent No. 6620988
; GENERAL INFORMATION:
; APPLICANT: English, Leigh H.
; APPLICANT: Brussock, Susan M.
; APPLICANT: Malvar, Thomas M.
; APPLICANT: Bryson, James W.
; APPLICANT: Kulesza, Caroline A.
; APPLICANT: Walters, Frederick S.
; APPLICANT: Slatin, Stephen L.
; APPLICANT: Von Tersch, Michael A.
; APPLICANT: Romano, Charles
; TITLE OF INVENTION: NUCLEIC ACID SEGMENTS ENCODING MODIFIED
; TITLE OF INVENTION: COLEOPTERAN-TOXIC CRYSTAL PROTEINS
; NUMBER OF SEQUENCES: 113
; CORRESPONDENCE ADDRESS:
; ADDRESSEE: Arnold, White & Durkee
; STREET: P.O. Box 4433
; CITY: Houston
; STATE: Texas
; COUNTRY: USA
; ZIP: 77210
; COMPUTER READABLE FORM:
; MEDIUM TYPE: Floppy disk
; COMPUTER: IBM PC compatible
; OPERATING SYSTEM: PC-DOS/MS-DOS
; SOFTWARE: Patentin Release #1.0, Version #1.30
; CURRENT APPLICATION DATA:
; APPLICATION NUMBER: US/09/427,770
; FILING DATE:
; CLASSIFICATION:
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER: US 08/993,722
; FILING DATE: 18-DEC-1997
; ATTORNEY/AGENT INFORMATION:
; NAME: Kitchell, Barbara S.
; REGISTRATION NUMBER: 33,928
; REFERENCE/DOCKET NUMBER: MECO:149
; TELECOMMUNICATION INFORMATION:
; TELEPHONE: 512/418-3106
; TELEFAX: 512/474-7577
; INFORMATION FOR SEQ ID NO: 32:
; SEQUENCE CHARACTERISTICS:
; LENGTH: 652 amino acids
; TYPE: amino acid
; TOPOLOGY: linear
; MOLECULE TYPE: protein
; US-09-427-770-32

Query Match          99.8%; Score 3400; DB 4; Length 652;
Best Local Similarity 99.8%; Pred. No. 2e-286;
Matches 651; Conservative 0; Mismatches 1; Indels 0; Gaps 0;

Qy 1 MNPNNRSEHDTIKVTNPSELQTNHNQYPLADNPNSTLEELNYKEFLRMTESSSTEVLNLS 60
Db 1 MNPNNRSEHDTIKVTNPSELQTNHNQYPLADNPNSTLEELNYKEFLRMTESSSTEVLNLS 60
Qy 61 TVKDAVGTGIVSVVQILGVVGVFPAGALTSFYQSFNTIWPSPDADPKAFMAQVEVLIDK 120
Db 61 TVKDAVGTGIVSVVQILGVVGVFPAGALTSFYQSFNTIWPSPDADPKAFMAQVEVLIDK 120
Qy 121 KIEEYAKSKALAELOGLQNNFEDYVNALNSWKKTPLSLRSKRSQDRIRLFSQAESHFRN 180
Db 121 KIEEYAKSKALAELOGLQNNFEDYVNALNSWKKTPLSLRSKRSQDRIRLFSQAESHFRN 180
Qy 181 SMPFSAVSKFEVLFLPTYAQAANTHLLLLKDAQVFGEEWGYSSDVAEFYHRQLKLTQY 240
Db 181 SMPFSAVSKFEVLFLPTYAQAANTHLLLLKDAQVFGEEWGYSSDVAEFYHRQLKLTQY 240
Qy 241 TDHCVNWYVGLNGLRGSTDYDAWKENRFRREMTLTVLDLVLFPFVDRLYSKGVKTEL 300
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Db 241 TDHCVNWNVLGSLRGSTYDAWVKFNFRREMTLTVLDLVLFPFYDIRLSYKGVKTEL 300
QY 301 TRDIETDPTFSLNTLOEYGPTEFLSTENSRKPHLFDYLGQIEFHTRLQPGYFGKDSFNW 360
Db 301 TRDIETDPTFSLNTLOEYGPTEFLSTENSRKPHLFDYLGQIEFHTRLQPGYFGKDSFNW 360
QY 361 SGNVYETRPSIGSSKTIITSPFYGDKSTEPVQKLSFDGQKVRRTIANTDVAWPNKGKVLG 420
Db 361 SGNVYETRPSIGSSKTIITSPFYGDKSTEPVQKLSFDGQKVRRTIANTDVAWPNKGKVLG 420
QY 421 VTKVDFSQYDDQKNETSTQTYDSKRNNGHVSQAQSDIDQLPPTTDEPLEKAYSHQNLV 480
Db 421 VTKVDFSQYDDQKNETSTQTYDSKRNNGHVSQAQSDIDQLPPTTDEPLEKAYSHQNLV 480
QY 481 CFLMDORRTGTPFFTWTHRSVDFNTIDAETKITQLPVVKAYALSSGASIIIEGPGFTGNL 540
Db 481 CFLMDORRTGTPFFTWTHRSVDFNTIDAETKITQLPVVKAYALSSGASIIIEGPGFTGNL 540
QY 541 LFLKSSNSIAKFKVTLSAALLQRYRVRIRVASTTNLRLFVQNSNNDFLVIYINKTNWK 600
Db 541 LFLKSSNSIAKFKVTLSAALLQRYRVRIRVASTTNLRLFVQNSNNDFLVIYINKTNWK 600
QY 601 DDDLTYQTDFDLATNSNMFGSGDKNELIIGAESFVSNEKIYIDKIEFIPVQL 652
Db 601 DDDLTYQTDFDLATNSNMFGSGDKNELIIGAESFVSNEKIYIDKIEFIPVQL 652

RESULT 38

US-09-427-770-48
; Sequence 48, Application US/09427770
; Patent No. 6620988
; GENERAL INFORMATION:
; APPLICANT: English, Leigh H.
; APPLICANT: Brussock, Susan M.
; APPLICANT: Malvar, Thomas M.
; APPLICANT: Bryson, James W.
; APPLICANT: Kulesza, Caroline A.
; APPLICANT: Walters, Frederick S.
; APPLICANT: Slatin, Stephen L.
; APPLICANT: Von Tersch, Michael A.
; APPLICANT: Romano, Charles
; TITLE OF INVENTION: NUCLEIC ACID SEGMENTS ENCODING MODIFIED
; TITLE OF INVENTION: COLEOPTERAN-TOXIC CRYSTAL PROTEINS
; NUMBER OF SEQUENCES: 113
; CORRESPONDENCE ADDRESS:
; ADDRESSEE: Arnold, White & Durkee
; STREET: P.O. Box 4433
; CITY: Houston
; STATE: Texas
; COUNTRY: USA
; ZIP: 77210
; COMPUTER READABLE FORM:
; MEDIUM TYPE: Floppy disk
; COMPUTER: IBM PC compatible
; OPERATING SYSTEM: PC-DOS/MS-DOS
; SOFTWARE: Patentin Release #1.0, Version #1.30
; CURRENT APPLICATION DATA:
; APPLICATION NUMBER: US/09/427,770
; FILING DATE:
; CLASSIFICATION:
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER: US 08/993,722
; FILING DATE: 18-DEC-1997
; ATTORNEY/AGENT INFORMATION:
; NAME: Kitchell, Barbara S.
; REGISTRATION NUMBER: 33,928
; REFERENCE/DOCKET NUMBER: MECO:149
; TELECOMMUNICATION INFORMATION:
; TELEPHONE: 512/418-3106
; TELEFAX: 512/474-7577
; INFORMATION FOR SEQ ID NO: 48:
; SEQUENCE CHARACTERISTICS:

; LENGTH: 652 amino acids
; TYPE: amino acid
; TOPOLOGY: linear
; MOLECULE TYPE: protein
US-09-427-770-48
Query Match 99.8%; Score 3400; DB 4; Length 652;
Best Local Similarity 99.7%; Pred. No. 2e-286;
Matches 650; Conservative 1; Mismatches 1; Indels 0; Gaps 0;
QY 1 MNPNNRSEHDTIKVTPNSELTQNHQYPLADNPNSTLEELNYKEFLRMWEDSSSTEVLDNS 60
Db 1 MNPNNRSEHDTIKVTPNSELTQNHQYPLADNPNSTLEELNYKEFLRMWEDSSSTEVLDNS 60
QY 61 TVKDAVGTGIVSVQIILGVGVPPAGALTSTFYQSFLNTIWPSDADPKAFMAQVEVLIDK 120
Db 61 TVKDAVGTGIVSVQIILGVGVPPAGALTSTFYQSFLNTIWPSDADPKAFMAQVEVLIDK 120
QY 121 KIEYAKSKALAELOGLQNNPEDIYVNALNSWKKTPLSLRSKRSQDRIRELFSQAESHFN 180
Db 121 KIEYAKSKALAELOGLQNNPEDIYVNALNSWKKTPLSLRSKRSQDRIRELFSQAESHFN 180
QY 181 SMPFSAVSKFEVLFPYVAQAANTHLLLLKDAQVFGEEWYSSDEDVAFYHRQLKLTOQY 240
Db 181 SMPFSAVSKFEVLFPYVAQAANTHLLLLKDAQVFGEEWYSSDEDVAFYHRQLKLTOQY 240
QY 241 TDHCVNWNVLGSLRGSTYDAWVKFNFRREMTLTVLDLVLFPFYDIRLSYKGVKTEL 300
Db 241 TDHCVNWNVLGSLRGSTYDAWVKFNFRREMTLTVLDLVLFPFYDIRLSYKGVKTEL 300
QY 301 TRDIETDPTFSLNTLOEYGPTEFLSTENSRKPHLFDYLGQIEFHTRLQPGYFGKDSFNW 360
Db 301 TRDIETDPTFSLNTLOEYGPTEFLSTENSRKPHLFDYLGQIEFHTRLQPGYFGKDSFNW 360
QY 361 SGNVYETRPSIGSSKTIITSPFYGDKSTEPVQKLSFDGQKVRRTIANTDVAWPNKGKVLG 420
Db 361 SGNVYETRPSIGSSKTIITSPFYGDKSTEPVQKLSFDGQKVRRTIANTDVAWPNKGKVLG 420
QY 421 VTKVDFSQYDDQKNETSTQTYDSKRNNGHVSQAQSDIDQLPPTTDEPLEKAYSHQNLV 480
Db 421 VTKVDFSQYDDQKNETSTQTYDSKRNNGHVSQAQSDIDQLPPTTDEPLEKAYSHQNLV 480
QY 481 CFLMDORRTGTPFFTWTHRSVDFNTIDAETKITQLPVVKAYALSSGASIIIEGPGFTGNL 540
Db 481 CFLMDORRTGTPFFTWTHRSVDFNTIDAETKITQLPVVKAYALSSGASIIIEGPGFTGNL 540
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Db 541 LFLKSSNSIAKFKVTLSAALLQRYRVRIRVASTTNLRLFVQNSNNDFLVIYINKTNWK 600
QY 601 DDDLTYQTDFDLATNSNMFGSGDKNELIIGAESFVSNEKIYIDKIEFIPVQL 652
Db 601 DDDLTYQTDFDLATNSNMFGSGDKNELIIGAESFVSNEKIYIDKIEFIPVQL 652

RESULT 39

US-09-427-769-32
; Sequence 32, Application US/09427769
; Patent No. 6642030
; GENERAL INFORMATION:
; APPLICANT: English, Leigh H.
; APPLICANT: Brussock, Susan M.
; APPLICANT: Malvar, Thomas M.
; APPLICANT: Bryson, James W.
; APPLICANT: Kulesza, Caroline A.
; APPLICANT: Walters, Frederick S.
; APPLICANT: Slatin, Stephen L.
; APPLICANT: Von Tersch, Michael A.
; APPLICANT: Romano, Charles
; TITLE OF INVENTION: NUCLEIC ACID SEGMENTS ENCODING MODIFIED
; TITLE OF INVENTION: COLEOPTERAN-TOXIC CRYSTAL PROTEINS
; NUMBER OF SEQUENCES: 113
; CORRESPONDENCE ADDRESS:

```

; ADDRESSEE: Arnold, White & Durkee
; STREET: P.O. Box 4433
; CITY: Houston
; STATE: Texas
; COUNTRY: USA
; ZIP: 77210
; COMPUTER READABLE FORM:
; MEDIUM TYPE: Floppy disk
; OPERATING SYSTEM: PC-DOS/MS-DOS
; SOFTWARE: Patent In Release #1.0, Version #1.30
; CURRENT APPLICATION DATA:
; FILING DATE:
; PRIOR APPLICATION DATA:
; CLASSIFICATION:
; APPLICATION NUMBER: 08/993,722
; FILING DATE:
; ATTORNEY/AGENT INFORMATION:
; NAME: Kitchell, Barbara S.
; REGISTRATION NUMBER: 33,928
; REFERENCE/DOCKET NUMBER: MECO:149
; TELECOMMUNICATION INFORMATION:
; TELEPHONE: 512/418-3106
; TELEFAX: 512/474-7577
; INFORMATION FOR SEQ ID NO: 32:
; SEQUENCE CHARACTERISTICS:
; LENGTH: 652 amino acids
; TYPE: amino acid
; TOPOLOGY: linear
; MOLECULE TYPE: protein
; US-09-427-769-32

Query Match 99.8%; Score 3400; DB 4; Length 652;
Best Local Similarity 99.8%; Pred. No. 2e-286;
Matches 651; Conservative 0; Mismatches 1; Indels 0; Gaps 0;

QY 1 MNPNNRSEHDTIKVTNPSELQTNHNOYPLADNPNTLEELNYKEFLRMTESSSTEVLDNS 60
DB 1 MNPNNRSEHDTIKVTNPSELQTNHNOYPLADNPNTLEELNYKEFLRMTESSSTEVLDNS 60
QY 61 TVKDVGTVGTVSVVQILGVVGVFPFAGALTSFYQSFLNTIWPSPADPWKAFMAQVEVLIDK 120
DB 61 TVKDVGTVGTVSVVQILGVVGVFPFAGALTSFYQSFLNTIWPSPADPWKAFMAQVEVLIDK 120
QY 121 KIEEYAKSKALAELOGLQNNFEDYVNALNSWKKTPLSLRSKRSQDRIRIELFSQASHFRN 180
DB 121 KIEEYAKSKALAELOGLQNNFEDYVNALNSWKKTPLSLRSKRSQDRIRIELFSQASHFRN 180
QY 181 SMPSPFAVSKEFVLPFTYAQAANTHLLKDAQVFGEEGYSSEDAEVAEFYHROKLKLTQY 240
DB 181 SMPSPFAVSKEFVLPFTYAQAANTHLLKDAQVFGEEGYSSEDAEVAEFYHROKLKLTQY 240
QY 241 TDHCVNMYNGLNGRSTYDAWKNRPREMTLVLDLIVLPFYDRLYSKGVKTEL 300
DB 241 TDHCVNMYNGLNGRSTYDAWKNRPREMTLVLDLIVLPFYDRLYSKGVKTEL 300
QY 301 TRDIFTDPIFLNTLQBYGPTLSIENSIRKPHLFDYLOGIEFHTLQPGYFGKDSFNW 360
DB 301 TRDIFTDPIFLNTLQBYGPTLSIENSIRKPHLFDYLOGIEFHTLQPGYFGKDSFNW 360
QY 361 SGNYVETRPISGSKTITSPFYGDKSTPEVKLSFQDGQKYRTIANTDVAWPNKGYL 420
DB 361 SGNYVETRPISGSKTITSPFYGDKSTPEVKLSFQDGQKYRTIANTDVAWPNKGYL 420
QY 421 VTKVDSFYDDQKNSTQYDYSKRNGHVSQAQSDIDQLPETTPDPLEKAYSHQLNYAE 480
DB 421 VTKVDSFYDDQKNSTQYDYSKRNGHVSQAQSDIDQLPETTPDPLEKAYSHQLNYAE 480
QY 481 CFLMQDRRGITPFTTHTHRSVDFNTIDAEKITQLPVVKAYALSSGASIIIEGFGTGGNL 540
DB 481 CFLMQDRRGITPFTTHTHRSVDFNTIDAEKITQLPVVKAYALSSGASIIIEGFGTGGNL 540

; RESULT 40
; US-09-427-769-48
; Sequence 48, Application US/09427769
; Patent No. 6642030
; GENERAL INFORMATION:
; APPLICANT: English, Leigh H.
; APPLICANT: Brussock, Susan M.
; APPLICANT: Malvar, Thomas W.
; APPLICANT: Bryson, James W.
; APPLICANT: Kulesza, Caroline A.
; APPLICANT: Walters, Frederick S.
; APPLICANT: Slatin, Stephen L.
; APPLICANT: Von Tersch, Michael A.
; APPLICANT: Romano, Charles
; TITLE OF INVENTION: NUCLEIC ACID SEGMENTS ENCODING MODIFIED
; TITLE OF INVENTION: COLEOPTERAN-TOXIC CRYSTAL PROTEINS
; NUMBER OF SEQUENCES: 113
; CORRESPONDENCE ADDRESS:
; ADDRESSEE: Arnold, White & Durkee
; STREET: P.O. Box 4433
; CITY: Houston
; STATE: Texas
; COUNTRY: USA
; ZIP: 77210
; COMPUTER READABLE FORM:
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; OPERATING SYSTEM: IBM PC compatible
; SOFTWARE: Patent In Release #1.0, Version #1.30
; CURRENT APPLICATION DATA:
; FILING DATE:
; CLASSIFICATION:
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER: 08/993,722
; FILING DATE:
; ATTORNEY/AGENT INFORMATION:
; NAME: Kitchell, Barbara S.
; REGISTRATION NUMBER: 33,928
; REFERENCE/DOCKET NUMBER: MECO:149
; TELECOMMUNICATION INFORMATION:
; TELEPHONE: 512/418-3106
; TELEFAX: 512/474-7577
; INFORMATION FOR SEQ ID NO: 48:
; SEQUENCE CHARACTERISTICS:
; LENGTH: 652 amino acids
; TYPE: amino acid
; TOPOLOGY: linear
; MOLECULE TYPE: protein
; US-09-427-769-48

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Best Local Similarity 99.7%; Pred. No. 2e-286;
Matches 650; Conservative 1; Mismatches 1; Indels 0; Gaps 0;

QY 1 MNPNNRSEHDTIKVTNPSELQTNHNOYPLADNPNTLEELNYKEFLRMTESSSTEVLDNS 60
DB 1 MNPNNRSEHDTIKVTNPSELQTNHNOYPLADNPNTLEELNYKEFLRMTESSSTEVLDNS 60
QY 61 TVKDVGTVGTVSVVQILGVVGVFPFAGALTSFYQSFLNTIWPSPADPWKAFMAQVEVLIDK 120
DB 61 TVKDVGTVGTVSVVQILGVVGVFPFAGALTSFYQSFLNTIWPSPADPWKAFMAQVEVLIDK 120
QY 121 KIEEYAKSKALAELOGLQNNFEDYVNALNSWKKTPLSLRSKRSQDRIRIELFSQASHFRN 180
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Db 121 KIEEYAKSALAELOGLQNNFEDYVNALNSWKKTPLSLRSKRSQDRIRLELFSQAESHFRN 180
QY 181 SMPFAVSFEVLFTPTAAQANTHLLLLKDAQVGEWGYSSDVAEFYHRQLKLTQY 240
Db 181 SMPFAVSFEVLFTPTAAQANTHLLLLKDAQVGEWGYSSDVAEFYHRQLKLTQY 240
QY 241 TDHCNVNNGVGLRGSTYDAWVKFNRRRMTLTVLDLIVLFPFYDIRLYSGVKTEL 300
Db 241 TDHCNVNNGVGLRGSTYDAWVKFNRRRMTLTVLDLIVLFPFYDIRLYSGVKTEL 300
QY 301 TRDITDTPFSLNTLOEYGPFTLSIENSRKPHLDYLOQIEFHTRLQPGYFGKDSFNW 360
Db 301 TRDITDTPFSLNTLOEYGPFTLSIENSRKPHLDYLOQIEFHTRLQPGYFGKDSFNW 360
QY 361 SGNVYETRPSIGSSKTIITSPFYGDKSTEPVKLSFDGQKVRTIANTDVAAMPNGKVYL 420
Db 361 SGNVYETRPSIGSSKTIITSPFYGDKSTEPVKLSFDGQKVRTIANTDVAAMPNGKVYL 420
QY 421 VTKVDFSQYDDQKNETSTQTYDSKRNNGHVSAQDSIDQLPPTTDEPLEKAYSHQNLV 480
Db 421 VTKVDFSQYDDQKNETSTQTYDSKRNNGHVSAQDSIDQLPPTTDEPLEKAYSHQNLV 480
QY 481 CFLMODRRGTIPFFTWTHRSVDFNTIDAETITOLPVPVKAYALSSGASIIIEGPGFTG 540
Db 481 CFLMODRRGTIPFFTWTHRSVDFNTIDAETITOLPVPVKAYALSSGASIIIEGPGFTG 540
QY 541 LFLKSSNSIAKFKVTLNSAALLQRYRIRYASTTNLRLFVQNSNNDFLVIYINKTWNK 600
Db 541 LFLKSSNSIAKFKVTLNSAALLQRYRIRYASTTNLRLFVQNSNNDFLVIYINKTWNK 600
QY 601 DDLTYQTDFDLATNSNMFGSGDKNELIIGAESFVSNEKIYIDKIEFIPVQL 652
Db 601 DDLTYQTDFDLATNSNMFGSGDKNELIIGAESFVSNEKIYIDKIEFIPVQL 652

RESULT 41

US-08-996-441B-44
; Sequence 44, Application US/08996441B
; Patent No. 6023013
; GENERAL INFORMATION:
; APPLICANT: English, Leigh H.
; APPLICANT: Brussock, Susan M.
; APPLICANT: Malvar, Thomas M.
; APPLICANT: Bryson, James W.
; APPLICANT: Kulesza, Caroline A.
; APPLICANT: Walters, Frederick S.
; APPLICANT: Slatin, Stephen L.
; APPLICANT: Von Tersch, Michael A.
; APPLICANT: Romano, Charles
; TITLE OF INVENTION: INSECT-RESISTANT TRANSGENIC PLANTS
; NUMBER OF SEQUENCES: 113
; CORRESPONDENCE ADDRESS:
; ADDRESS: Arnold, White & Durkee
; STREET: P.O. Box 4433
; CITY: Houston
; STATE: Texas
; COUNTRY: USA
; ZIP: 77210
; COMPUTER READABLE FORM:
; MEDIUM TYPE: Floppy disk
; COMPUTER: IBM PC compatible
; OPERATING SYSTEM: PC-DOS/MS-DOS
; SOFTWARE: PatentIn Release #1.0, Version #1.30
; CURRENT APPLICATION DATA:
; APPLICATION NUMBER: US/08/996,441B
; FILING DATE: 18-DEC-1997
; CLASSIFICATION: 800
; ATTORNEY/AGENT INFORMATION:
; NAME: Kitchell, Barbara S.
; REGISTRATION NUMBER: 33,928
; REFERENCE/DOCKET NUMBER: MECO:151
; TELECOMMUNICATION INFORMATION:

; TELEPHONE: 512/418-3000
; TELEFAX: 512/474-7577
; INFORMATION FOR SEQ ID NO: 44:
; SEQUENCE CHARACTERISTICS:
; LENGTH: 652 amino acids
; TYPE: amino acid
; TOPOLOGY: linear
; MOLECULE TYPE: protein
; US-08-996-441B-44

Query Match 99.8%; Score 3399; DB 3; Length 652;
Best Local Similarity 99.8%; Pred. No. 2.4e-286;
Matches 651; Conservative 0; Mismatches 1; Indels 0; Gaps 0;

QY 1 MNPNNRSEHDTIKVTPNSELOTNHNQYPLADNPNSTIEELNYKEFLRWTESSSEVLDNS 60
Db 1 MNPNNRSEHDTIKVTPNSELOTNHNQYPLADNPNSTIEELNYKEFLRWTESSSEVLDNS 60
QY 61 TVKDAVGTGISVWGQILGVGVPPFAGALTSTFYQSFLNTIWPSPDADPWKAFMAQVEVLIDK 120
Db 61 TVKDAVGTGISVWGQILGVGVPPFAGALTSTFYQSFLNTIWPSPDADPWKAFMAQVEVLIDK 120
QY 121 KIEEYAKSALAELOGLQNNFEDYVNALNSWKKTPLSLRSKRSQDRIRLELFSQAESHFRN 180
Db 121 KIEEYAKSALAELOGLQNNFEDYVNALNSWKKTPLSLRSKRSQDRIRLELFSQAESHFRN 180
QY 181 SMPFAVSFEVLFTPTAAQANTHLLLLKDAQVGEWGYSSDVAEFYHRQLKLTQY 240
Db 181 SMPFAVSFEVLFTPTAAQANTHLLLLKDAQVGEWGYSSDVAEFYHRQLKLTQY 240
QY 241 TDHCNVNNGVGLRGSTYDAWVKFNRRRMTLTVLDLIVLFPFYDIRLYSGVKTEL 300
Db 241 TDHCNVNNGVGLRGSTYDAWVKFNRRRMTLTVLDLIVLFPFYDIRLYSGVKTEL 300
QY 301 TRDITDTPFSLNTLOEYGPFTLSIENSRKPHLDYLOQIEFHTRLQPGYFGKDSFNW 360
Db 301 TRDITDTPFSLNTLOEYGPFTLSIENSRKPHLDYLOQIEFHTRLQPGYFGKDSFNW 360
QY 361 SGNVYETRPSIGSSKTIITSPFYGDKSTEPVKLSFDGQKVRTIANTDVAAMPNGKVYL 420
Db 361 SGNVYETRPSIGSSKTIITSPFYGDKSTEPVKLSFDGQKVRTIANTDVAAMPNGKVYL 420
QY 421 VTKVDFSQYDDQKNETSTQTYDSKRNNGHVSAQDSIDQLPPTTDEPLEKAYSHQNLV 480
Db 421 VTKVDFSQYDDQKNETSTQTYDSKRNNGHVSAQDSIDQLPPTTDEPLEKAYSHQNLV 480
QY 481 CFLMODRRGTIPFFTWTHRSVDFNTIDAETITOLPVPVKAYALSSGASIIIEGPGFTG 540
Db 481 CFLMODRRGTIPFFTWTHRSVDFNTIDAETITOLPVPVKAYALSSGASIIIEGPGFTG 540
QY 541 LFLKSSNSIAKFKVTLNSAALLQRYRIRYASTTNLRLFVQNSNNDFLVIYINKTWNK 600
Db 541 LFLKSSNSIAKFKVTLNSAALLQRYRIRYASTTNLRLFVQNSNNDFLVIYINKTWNK 600
QY 601 DDLTYQTDFDLATNSNMFGSGDKNELIIGAESFVSNEKIYIDKIEFIPVQL 652
Db 601 DDLTYQTDFDLATNSNMFGSGDKNELIIGAESFVSNEKIYIDKIEFIPVQL 652

RESULT 42

US-08-996-441B-54
; Sequence 54, Application US/08996441B
; Patent No. 6023013
; GENERAL INFORMATION:
; APPLICANT: English, Leigh H.
; APPLICANT: Brussock, Susan M.
; APPLICANT: Malvar, Thomas M.
; APPLICANT: Bryson, James W.
; APPLICANT: Kulesza, Caroline A.
; APPLICANT: Walters, Frederick S.
; APPLICANT: Slatin, Stephen L.
; APPLICANT: Von Tersch, Michael A.
; APPLICANT: Romano, Charles

	Query Match	99.8%;	Score 3399;	DB 3;	Length 652;
	Best Local Similarity	99.8%;	Pred. No. 2.4e-286;		
	Matches 651;	Conservative 0;	Mismatches 1;	Indels 0;	Gaps 0;
Qy	1	MNPNRSEHDTIKVTPNSELQTNHNOYPLADNPNSTLEELNYKFLRMTDSSSTLEVLNS	60		
Db	1	MNPNRSEHDTIKVTPNSELQTNHNOYPLADNPNSTLEELNYKFLRMTDSSSTLEVLNS	60		
Qy	61	TVKDAVGTGISVVGQILGVGVGPAGALTSFYQSFQSLNTIWPSDADPWKAFAQAQVEVLIDK	120		
Db	61	TVKDAVGTGISVVGQILGVGVGPAGALTSFYQSFQSLNTIWPSDADPWKAFAQAQVEVLIDK	120		
Qy	121	KI BEYAKSKALAEQLQGNPFEDVYNALNSGWKTPLSRKSRQDRITRELSQAESHPRN	180		
Db	121	KI BEYAKSKALAEQLQGNPFEDVYNALNSGWKTPLSRKSRQDRITRELSQAESHPRN	180		

181 SMPFAVSKFEVLFLPTVAQAANTHLLLLKDAQVGEWGYSSDVAEFYHRQLKLTQOY 240
181 SMPFAVSKFEVLFLPTVAQAANTHLLLLKDAQVGEWGYSSDVAEFYHRQLKLTQOY 240
241 TDHCNVNNGVGLRGSTYDAWVFNPRFRREMTLTVLDLIVLFFPYDIRLYSGVKTEL 300
241 TDHCNVNNGVGLRGSTYDAWVFNPRFRREMTLTVLDLIVLFFPYDIRLYSGVKTEL 300
301 TRDIFTDPIFSLNTLOEYPTFLSIENSIKPHLFDYLOGIEFHTRLQPGYFGKDSFNYW 360
301 TRDIFTDPIFSLNTLOEYPTFLSIENSIKPHLFDYLOGIEFHTRLQPGYFGKDSFNYW 360
361 SGNVYETRPSIGSSKTIITSPFYGDKSTPEVQKLSFDGQKVYRTIANTDVAAPNGKVYLG 420
361 SGNVYETRPSIGSSKTIITSPFYGDKSTPEVQKLSFDGQKVYRTIANTDVAAPNGKVYLG 420
421 VTKVDFPSQYDDQKNETSTQYDSKRNNGHVSAQDSIDQLPPETTDEPLEKAYSHQNLV 480
421 VTKVDFPSQYDDQKNETSTQYDSKRNNGHVSAQDSIDQLPPETTDEPLEKAYSHQNLV 480
481 CFLMDRRGTIPFFTWTHRSVDFNTIDAETITQLPVVKAYALSSGASIEGPGFTGGNL 540
481 CFLMDRRGTIPFFTWTHRSVDFNTIDAETITQLPVVKAYALSSGASIEGPGFTGGNL 540
541 LFLKSSNSIAKFKVTLNSAALLQRYVRIRYASTTNLRLFVQNSNNDPLVIYINKTMNK 600
541 LFLKSSNSIAKFKVTLNSAALLQRYVRIRYASTTNLRLFVQNSNNDPLVIYINKTMNK 600
601 DDDLTQYTFDLATTSNMGFGSKNELIIGAESFVSNKEIYIDKIEFIPVQL 652
601 DDDLTQYTFDLATTSNMGFGSKNELIIGAESFVSNKEIYIDKIEFIPVQL 652

RESULT 44

US-08-993-722A-54
; Sequence 54, Application US/08993722A
; Patent No. 6060594
; GENERAL INFORMATION:
; APPLICANT: English, Leigh H.
; APPLICANT: Brussock, Susan M.
; APPLICANT: Malvar, Thomas M.
; APPLICANT: Bryson, James W.
; APPLICANT: Kulesza, Caroline A.
; APPLICANT: Walters, Frederick S.
; APPLICANT: Slatin, Stephen L.
; APPLICANT: Romano, Charles
; APPLICANT: Von Tersch, Michael A.
; TITLE OF INVENTION: NUCLEIC ACID SEGMENTS ENCODING MODIFIED
; TITLE OF INVENTION: COLEOPTERAN-TOXIC CRYSTAL PROTEINS
; NUMBER OF SEQUENCES: 113
; CORRESPONDENCE ADDRESS:
; ADDRESSEE: Arnold, White & Durkee
; STREET: P.O. Box 4433
; CITY: Houston
; STATE: Texas
; COUNTRY: USA
; ZIP: 77210

COMPUTER READABLE FORM:
; MEDIUM TYPE: Floppy disk
; COMPUTER: IBM PC compatible
; OPERATING SYSTEM: PC-DOS/MS-DOS
; SOFTWARE: PatentIn Release #1.0, Version #1.30
; CURRENT APPLICATION DATA:
; APPLICATION NUMBER: US/08/993,722A
; FILING DATE: 18-DEC-1997
; CLASSIFICATION: 435
; ATTORNEY/AGENT INFORMATION:
; NAME: Kitchell, Barbara S.
; REGISTRATION NUMBER: 33,928
; REFERENCE/DOCKET NUMBER: MECO:149
; TELECOMMUNICATION INFORMATION:
; TELEPHONE: 512/418-3106
; TELEFAX: 512/474-7577

; INFORMATION FOR SEQ ID NO: 54:
; SEQUENCE CHARACTERISTICS:
; LENGTH: 652 amino acids
; TYPE: amino acid
; TOPOLOGY: linear
; MOLECULE TYPE: protein
US-08-993-722A-54

Query Match 99.8%; Score 3399; DB 3; Length 652;
Best Local Similarity 99.8%; Pred. No. 2.4e-286;
Matches 651; Conservative 0; Mismatches 1; Indels 0; Gaps 0;

QY 1 MNPNNRSEHDTIKVTPNSELTQNHQYPLADPNPSTLEELNYKEFLRMTESSTEVLDNS 60
Db 1 MNPNNRSEHDTIKVTPNSELTQNHQYPLADPNPSTLEELNYKEFLRMTESSTEVLDNS 60
QY 61 TVKDAVGTGISVVGQILGVVGPFPAGALTTSYQSFNTIWPSPDADPWKAFVAQVEVLIDK 120
Db 61 TVKDAVGTGISVVGQILGVVGPFPAGALTTSYQSFNTIWPSPDADPWKAFVAQVEVLIDK 120
QY 121 KIEEYAKSKALAELOGLQNNFEDYVNALNSWKTPLSLRKSRSDRIRELFSQAESHFN 180
Db 121 KIEEYAKSKALAELOGLQNNFEDYVNALNSWKTPLSLRKSRSDRIRELFSQAESHFN 180
QY 181 SMPFAVSKFEVLFLPTVAQAANTHLLLLKDAQVGEWGYSSDVAEFYHRQLKLTQOY 240
Db 181 SMPFAVSKFEVLFLPTVAQAANTHLLLLKDAQVGEWGYSSDVAEFYHRQLKLTQOY 240
QY 241 TDHCNVNNGVGLRGSTYDAWVFNPRFRREMTLTVLDLIVLFFPYDIRLYSGVKTEL 300
Db 241 TDHCNVNNGVGLRGSTYDAWVFNPRFRREMTLTVLDLIVLFFPYDIRLYSGVKTEL 300
QY 301 TRDIFTDPIFSLNTLOEYPTFLSIENSIKPHLFDYLOGIEFHTRLQPGYFGKDSFNYW 360
Db 301 TRDIFTDPIFSLNTLOEYPTFLSIENSIKPHLFDYLOGIEFHTRLQPGYFGKDSFNYW 360
QY 361 SGNVYETRPSIGSSKTIITSPFYGDKSTPEVQKLSFDGQKVYRTIANTDVAAPNGKVYLG 420
Db 361 SGNVYETRPSIGSSKTIITSPFYGDKSTPEVQKLSFDGQKVYRTIANTDVAAPNGKVYLG 420
QY 421 VTKVDFPSQYDDQKNETSTQYDSKRNNGHVSAQDSIDQLPPETTDEPLEKAYSHQNLV 480
Db 421 VTKVDFPSQYDDQKNETSTQYDSKRNNGHVSAQDSIDQLPPETTDEPLEKAYSHQNLV 480
QY 481 CFLMDRRGTIPFFTWTHRSVDFNTIDAETITQLPVVKAYALSSGASIEGPGFTGGNL 540
Db 481 CFLMDRRGTIPFFTWTHRSVDFNTIDAETITQLPVVKAYALSSGASIEGPGFTGGNL 540
QY 541 LFLKSSNSIAKFKVTLNSAALLQRYVRIRYASTTNLRLFVQNSNNDPLVIYINKTMNK 600
Db 541 LFLKSSNSIAKFKVTLNSAALLQRYVRIRYASTTNLRLFVQNSNNDPLVIYINKTMNK 600
QY 601 DDDLTQYTFDLATTSNMGFGSKNELIIGAESFVSNKEIYIDKIEFIPVQL 652
Db 601 DDDLTQYTFDLATTSNMGFGSKNELIIGAESFVSNKEIYIDKIEFIPVQL 652

RESULT 45

US-08-993-170A-44
; Sequence 44, Application US/08993170A
; Patent No. 6063597
; GENERAL INFORMATION:
; APPLICANT: English, Leigh H.
; APPLICANT: Brussock, Susan M.
; APPLICANT: Malvar, Thomas M.
; APPLICANT: Bryson, James W.
; APPLICANT: Kulesza, Caroline A.
; APPLICANT: Walters, Frederick S.
; APPLICANT: Slatin, Stephen L.
; APPLICANT: Von Tersch, Michael A.
; TITLE OF INVENTION: POLYPEPTIDE COMPOSITIONS TOXIC TO
; TITLE OF INVENTION: COLEOPTERAN INSECTS
; NUMBER OF SEQUENCES: 113

```

CORRESPONDENCE ADDRESS:
ADDRESS: Arnold, White & Durkee
STREET: P.O. Box 4433
CITY: Houston
STATE: Texas
COUNTRY: USA
ZIP: 77210
COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0, Version #1.30
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/993,170A
FILING DATE: 18-DEC-1997
CLASSIFICATION: 424
ATTORNEY/AGENT INFORMATION:
NAME: Kitchell, Barbara S.
REGISTRATION NUMBER: 33,928
REFERENCE/DOCKET NUMBER: MECO:002
TELECOMMUNICATION INFORMATION:
TELEPHONE: 512/418-3000
TELEFAX: 512/474-7577
INFORMATION FOR SEQ ID NO: 44:
SEQUENCE CHARACTERISTICS:
LENGTH: 652 amino acids
TYPE: amino acid
TOPOLOGY: linear
MOLECULE TYPE: protein
US-08-993-170A-44

Query Match 99.8%; Score 3399; DB 3; Length 652;
Best Local Similarity 99.8%; Pred. No. 2.4e-286;
Matches 651; Conservative 0; Mismatches 1; Indels 0; Gaps 0;

Qy 1 MNPNNRSEHDTIKVTNPSELQTNHNPYPLADNPNTLEELNYKEFLRMTEDSDSTEVLNDS 60
Db 1 MNPNNRSEHDTIKVTNPSELQTNHNPYPLADNPNTLEELNYKEFLRMTEDSDSTEVLNDS 60

Qy 61 TVKDAVGTGIVSVGGQILGVVGVPPFAGALTSTFYOSFLNTIWPSPADPWPMAQVEVLIDK 120
Db 61 TVKDAVGTGIVSVGGQILGVVGVPPFAGALTSTFYOSFLNTIWPSPADPWPMAQVEVLIDK 120

Qy 121 KIEEYAKSKALAELOGLQNNFEDYVNALNSWKKTPLSLRSKRQDRIRLFSQAESHFRN 180
Db 121 KIEEYAKSKALAELOGLQNNFEDYVNALNSWKKTPLSLRSKRQDRIRLFSQAESHFRN 180

Qy 181 SMPSPAVSKPEVLFLPTYAQAANTHLLLLKDAQVFGGEWGYSSSEDVAEFYHRQLKLTQY 240
Db 181 SMPSPAVSKPEVLFLPTYAQAANTHLLLLKDAQVFGGEWGYSSSEDVAEFYHRQLKLTQY 240

CORRESPONDENCE ADDRESS:
ADDRESS: Arnold, White & Durkee
STREET: P.O. Box 4433
CITY: Houston
STATE: Texas
COUNTRY: USA
ZIP: 77210
COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0, Version #1.30
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/993,170A
FILING DATE: 18-DEC-1997
CLASSIFICATION: 424
ATTORNEY/AGENT INFORMATION:
NAME: Kitchell, Barbara S.
REGISTRATION NUMBER: 33,928
REFERENCE/DOCKET NUMBER: MECO:002
TELECOMMUNICATION INFORMATION:
TELEPHONE: 512/418-3000
TELEFAX: 512/474-7577
INFORMATION FOR SEQ ID NO: 44:
SEQUENCE CHARACTERISTICS:
LENGTH: 652 amino acids
TYPE: amino acid
TOPOLOGY: linear
MOLECULE TYPE: protein
US-08-993-170A-54

Query Match 99.8%; Score 3399; DB 3; Length 652;
Best Local Similarity 99.8%; Pred. No. 2.4e-286;
Matches 651; Conservative 0; Mismatches 1; Indels 0; Gaps 0;

Qy 1 MNPNNRSEHDTIKVTNPSELQTNHNPYPLADNPNTLEELNYKEFLRMTEDSDSTEVLNDS 60
Db 1 MNPNNRSEHDTIKVTNPSELQTNHNPYPLADNPNTLEELNYKEFLRMTEDSDSTEVLNDS 60

Qy 61 TVKDAVGTGIVSVGGQILGVVGVPPFAGALTSTFYOSFLNTIWPSPADPWPMAQVEVLIDK 120
Db 61 TVKDAVGTGIVSVGGQILGVVGVPPFAGALTSTFYOSFLNTIWPSPADPWPMAQVEVLIDK 120

Qy 121 KIEEYAKSKALAELOGLQNNFEDYVNALNSWKKTPLSLRSKRQDRIRLFSQAESHFRN 180
Db 121 KIEEYAKSKALAELOGLQNNFEDYVNALNSWKKTPLSLRSKRQDRIRLFSQAESHFRN 180

Qy 181 SMPSPAVSKPEVLFLPTYAQAANTHLLLLKDAQVFGGEWGYSSSEDVAEFYHRQLKLTQY 240
Db 181 SMPSPAVSKPEVLFLPTYAQAANTHLLLLKDAQVFGGEWGYSSSEDVAEFYHRQLKLTQY 240

```


STATE: Texas
COUNTRY: USA
ZIP: 77210
COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patent In Release #1.0, Version #1.30
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/993,775B
FILING DATE: 18-DEC-1997
CLASSIFICATION: 514
ATTORNEY/AGENT INFORMATION:
NAME: Kitchell, Barbara S.
REGISTRATION NUMBER: 33,928
REFERENCE/DOCKET NUMBER: MECO:150
TELECOMMUNICATION INFORMATION:
TELEPHONE: 512/418-3000
TELEFAX: 512/474-7577
TITLE OF INVENTION: NUCLEIC ACID SEGMENTS ENCODING MODIFIED
COLLEOPTERAN-TOXIC CRYSTAL PROTEINS
INFORMATION FOR SEQ ID NO: 54:
SEQUENCE CHARACTERISTICS:
LENGTH: 652 amino acids
TYPE: amino acid
TOPOLOGY: linear
MOLECULE TYPE: protein
US-08-993-775B-54

Query Match 99.8%; Score 3399; DB 3; Length 652;
Best Local Similarity 99.8%; Pred. No. 2.4e-286;
Matches 651; Conservative 0; Mismatches 1; Indels 0; Gaps 0;

QY 1 MNPNNRSEHDTIKVTPNSELQTNHNOYPLADNPNTLEELNYKEFLRMTEDSSSTEVLDNS 60
DB 1 MNPNNRSEHDTIKVTPNSELQTNHNOYPLADNPNTLEELNYKEFLRMTEDSSSTEVLDNS 60
QY 61 TVKDVGTVGIVGVVQILGVVGPAGALTSFYQSFLNTIWPSPADPWKAFMAQVEVLIDK 120
DB 61 TVKDVGTVGIVGVVQILGVVGPAGALTSFYQSFLNTIWPSPADPWKAFMAQVEVLIDK 120
QY 121 KIEEYAKSKALAEQLQNNFEDVYNALNSWKKTPLSLRSKRSQDRIRLFSQAESHFRN 180
DB 121 KIEEYAKSKALAEQLQNNFEDVYNALNSWKKTPLSLRSKRSQDRIRLFSQAESHFRN 180
QY 181 SMPFSAVSKFEVLFLPTYAQAAANTHLLLLKDAQVFGEEWGYSSDVAEFYHRLKLTQY 240
DB 181 SMPFSAVSKFEVLFLPTYAQAAANTHLLLLKDAQVFGEEWGYSSDVAEFYHRLKLTQY 240
QY 241 TDHCVNWNVYVGLNGLRGSTYDAWKFNPRREMTLVLDLIVLPPFYDIRLYSKGVKTEL 300
DB 241 TDHCVNWNVYVGLNGLRGSTYDAWKFNPRREMTLVLDLIVLPPFYDIRLYSKGVKTEL 300
QY 301 TRDIFTDPIFSLNTLQEGYGFTELSIENSIRKPHLFDYLOGIEFHTLQPCYFGKDSFNW 360
DB 301 TRDIFTDPIFSLNTLQEGYGFTELSIENSIRKPHLFDYLOGIEFHTLQPCYFGKDSFNW 360
QY 361 SGNVETRPISGSKTITSPFYGDKSTPEVQKLSFDGQKYVRIANTDVAWPNKGKYL 420
DB 361 SGNVETRPISGSKTITSPFYGDKSTPEVQKLSFDGQKYVRIANTDVAWPNKGKYL 420
QY 421 VTKVDSFYDDQKNETSTQYDSKRNGHVSAGSDIDQLPPTTDSPLEKAYSHQNLAYE 480
DB 421 VTKVDSFYDDQKNETSTQYDSKRNGHVSAGSDIDQLPPTTDSPLEKAYSHQNLAYE 480
QY 481 CFLMQDRRGITPFTWTHRSVDFNTIDAETITQLPVVKAYALSSGASIIIEGPGFTGGNL 540
DB 481 CFLMQDRRGITPFTWTHRSVDFNTIDAETITQLPVVKAYALSSGASIIIEGPGFTGGNL 540
QY 541 LFLKESNSIAKPKVTLNSAALLQRYVRIRYASTTNLRLFVQNSNNDFLVIVINKTMK 600
DB 541 LFLKESNSIAKPKVTLNSAALLQRYVRIRYASTTNLRLFVQNSNNDFLVIVINKTMK 600
QY 601 DDLLTYQTFDLATNSNMGFGDKNELIIGAESFVSNKIYIDKIEFIPVQL 652
DB 601 DDLLTYQTFDLATNSNMGFGDKNELIIGAESFVSNKIYIDKIEFIPVQL 652

RESULT 49
US-09-427-770-44
Sequence 44, Application US/09427770
Patent No. 6620988
GENERAL INFORMATION:
APPLICANT: English, Leigh H.
APPLICANT: Brussock, Susan M.
APPLICANT: Malvar, Thomas M.
APPLICANT: Bryson, James W.
APPLICANT: Kulesza, Caroline A.
APPLICANT: Walters, Frederick S.
APPLICANT: Slatin, Stephen L.
APPLICANT: Von Tersch, Michael A.
APPLICANT: Romano, Charles
TITLE OF INVENTION: NUCLEIC ACID SEGMENTS ENCODING MODIFIED
COLLEOPTERAN-TOXIC CRYSTAL PROTEINS
NUMBER OF SEQUENCES: 113
CORRESPONDENCE ADDRESS:
ADDRESSEE: Arnold, White & Durkee
STREET: P.O. Box 4433
CITY: Houston
STATE: Texas
COUNTRY: USA
ZIP: 77210
COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patent In Release #1.0, Version #1.30
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/09/427,770
FILING DATE:
CLASSIFICATION:
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 08/993,722
FILING DATE: 18-DEC-1997
ATTORNEY/AGENT INFORMATION:
NAME: Kitchell, Barbara S.
REGISTRATION NUMBER: 33,928
REFERENCE/DOCKET NUMBER: MECO:149
TELECOMMUNICATION INFORMATION:
TELEPHONE: 512/418-3106
TELEFAX: 512/474-7577
INFORMATION FOR SEQ ID NO: 44:
SEQUENCE CHARACTERISTICS:
LENGTH: 652 amino acids
TYPE: amino acid
TOPOLOGY: linear
MOLECULE TYPE: protein
US-09-427-770-44

Query Match 99.8%; Score 3399; DB 4; Length 652;
Best Local Similarity 99.8%; Pred. No. 2.4e-286;
Matches 651; Conservative 0; Mismatches 1; Indels 0; Gaps 0;

QY 1 MNPNNRSEHDTIKVTPNSELQTNHNOYPLADNPNTLEELNYKEFLRMTEDSSSTEVLDNS 60
DB 1 MNPNNRSEHDTIKVTPNSELQTNHNOYPLADNPNTLEELNYKEFLRMTEDSSSTEVLDNS 60
QY 61 TVKDVGTVGIVGVVQILGVVGPAGALTSFYQSFLNTIWPSPADPWKAFMAQVEVLIDK 120
DB 61 TVKDVGTVGIVGVVQILGVVGPAGALTSFYQSFLNTIWPSPADPWKAFMAQVEVLIDK 120
QY 121 KIEEYAKSKALAEQLQNNFEDVYNALNSWKKTPLSLRSKRSQDRIRLFSQAESHFRN 180
DB 121 KIEEYAKSKALAEQLQNNFEDVYNALNSWKKTPLSLRSKRSQDRIRLFSQAESHFRN 180
QY 181 SMPFSAVSKFEVLFLPTYAQAAANTHLLLLKDAQVFGEEWGYSSDVAEFYHRLKLTQY 240
DB 181 SMPFSAVSKFEVLFLPTYAQAAANTHLLLLKDAQVFGEEWGYSSDVAEFYHRLKLTQY 240

QY 241 TDHCNWNVNGLGRGSGTYDAWVKFNPRREMTLTVLDLIVLFPFYDIRLYSGVKTEL 300
DB 241 TDHCNWNVNGLGRGSGTYDAWVKFNPRREMTLTVLDLIVLFPFYDIRLYSGVKTEL 300
QY 301 TRDIFTDPIFSLNTLOEYGPTELSTLSEIRKPHLFDYLGQIEFHTRLQPGYFGKDSFNYW 360
DB 301 TRDIFTDPIFSLNTLOEYGPTELSTLSEIRKPHLFDYLGQIEFHTRLQPGYFGKDSFNYW 360
QY 361 SGNVYETRPSIGSSKTIITSPFYGDKSTEVQKLSFGDKQVYRTTANTDVAWPNKGKYL 420
DB 361 SGNVYETRPSIGSSKTIITSPFYGDKSTEVQKLSFGDKQVYRTTANTDVAWPNKGKYL 420
QY 421 VTKVDFSQYDDQKNETSTQTYDSKRNNGHVSQAQSDIDLPPTTDEPLEKAYSHQINL 480
DB 421 VTKVDFSQYDDQKNETSTQTYDSKRNNGHVSQAQSDIDLPPTTDEPLEKAYSHQINL 480
QY 481 CFLMDORRGTIPTFTWTHRSVDFNTIDAEKITQLPVVKAYALSSGASIIIEGPGFTGNL 540
DB 481 CFLMDORRGTIPTFTWTHRSVDFNTIDAEKITQLPVVKAYALSSGASIIIEGPGFTGNL 540
QY 541 LFLKSSNSIAKFKVTLNSAALLQRYRVRIRYASTTNLRLFVQNSNNDPLVIYINKTNK 600
DB 541 LFLKSSNSIAKFKVTLNSAALLQRYRVRIRYASTTNLRLFVQNSNNDPLVIYINKTNK 600
QY 601 DDLLTYQTFDLATTNSNMGFSGDKNELIIGAESFVSNKIIYIDKIEFIPVQL 652
DB 601 DDLLTYQTFDLATTNSNMGFSGDKNELIIGAESFVSNKIIYIDKIEFIPVQL 652

RESULT 50

US-09-427-770-54
; Sequence 54, Application US/09427770
; Patent No. 6620988
; GENERAL INFORMATION:
; APPLICANT: English, Leigh H.
; APPLICANT: Brussock, Susan M.
; APPLICANT: Malvar, Thomas M.
; APPLICANT: Bryson, James W.
; APPLICANT: Kulesza, Caroline A.
; APPLICANT: Walters, Frederick S.
; APPLICANT: Slatin, Stephen L.
; APPLICANT: Von Tersch, Michael A.
; APPLICANT: Romano, Charles
; TITLE OF INVENTION: NUCLEIC ACID SEGMENTS ENCODING MODIFIED
; TITLE OF INVENTION: COLEOPTERAN-TOXIC CRYSTAL PROTEINS
; NUMBER OF SEQUENCES: 113
; CORRESPONDENCE ADDRESS:
; ADDRESSEE: Arnold, White & Durkee
; STREET: P.O. Box 4433
; CITY: Houston
; STATE: Texas
; COUNTRY: USA
; ZIP: 77210
; COMPUTER READABLE FORM:
; MEDIUM TYPE: Floppy disk
; COMPUTER: IBM PC compatible
; OPERATING SYSTEM: PC-DOS/MS-DOS
; SOFTWARE: Patent In Release #1.0, Version #1.30
; CURRENT APPLICATION DATA:
; APPLICATION NUMBER: US/09/427,770
; FILING DATE:
; CLASSIFICATION:
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER: US 08/993,722
; FILING DATE: 18-DEC-1997
; ATTORNEY/AGENT INFORMATION:
; NAME: Kitchell, Barbara S.
; REGISTRATION NUMBER: 33,928
; REFERENCE/DOCKET NUMBER: MECO:149
; TELECOMMUNICATION INFORMATION:
; TELEPHONE: 512/418-3106
; TELEFAX: 512/474-7577

; INFORMATION FOR SEQ ID NO: 54:
; SEQUENCE CHARACTERISTICS:
; LENGTH: 652 amino acids
; TYPE: amino acid
; TOPOLOGY: linear
; MOLECULE TYPE: protein
US-09-427-770-54

Query Match 99.8%; Score 3399; DB 4; Length 652;
Best Local Similarity 99.8%; Pred. No. 2.4e-286;
Matches 651; Conservative 0; Mismatches 1; Indels 0; Gaps 0;

QY 1 MNPNNRSEHDITIKVTPNSELQTNHQYPLADNPSTLEELNYKFLRMTDSSSTEVLNLS 60
DB 1 MNPNNRSEHDITIKVTPNSELQTNHQYPLADNPSTLEELNYKFLRMTDSSSTEVLNLS 60
QY 61 TVKDAVGTGISVVGQILGVVGPFPAGALTSTSYQSFPLNTIWPSDADDPWAFMAQVEVLIDK 120
DB 61 TVKDAVGTGISVVGQILGVVGPFPAGALTSTSYQSFPLNTIWPSDADDPWAFMAQVEVLIDK 120
QY 121 KIEEYAKSKALAELOGLONNEDYVNALNSWKTPLSLRKSRSDRIRELSQAESHFRN 180
DB 121 KIEEYAKSKALAELOGLONNEDYVNALNSWKTPLSLRKSRSDRIRELSQAESHFRN 180
QY 181 SMPSFAYSKFEVLFLPTYAQAANTHLLLLKDAQVFGEEWGYSSSEDAEFYHRQLKLTQY 240
DB 181 SMPSFAYSKFEVLFLPTYAQAANTHLLLLKDAQVFGEEWGYSSSEDAEFYHRQLKLTQY 240
QY 241 TDHCNWNVNGLGRGSGTYDAWVKFNPRREMTLTVLDLIVLFPFYDIRLYSGVKTEL 300
DB 241 TDHCNWNVNGLGRGSGTYDAWVKFNPRREMTLTVLDLIVLFPFYDIRLYSGVKTEL 300
QY 301 TRDIFTDPIFSLNTLOEYGPTELSTLSEIRKPHLFDYLGQIEFHTRLQPGYFGKDSFNYW 360
DB 301 TRDIFTDPIFSLNTLOEYGPTELSTLSEIRKPHLFDYLGQIEFHTRLQPGYFGKDSFNYW 360
QY 361 SGNVYETRPSIGSSKTIITSPFYGDKSTEVQKLSFGDKQVYRTTANTDVAWPNKGKYL 420
DB 361 SGNVYETRPSIGSSKTIITSPFYGDKSTEVQKLSFGDKQVYRTTANTDVAWPNKGKYL 420
QY 421 VTKVDFSQYDDQKNETSTQTYDSKRNNGHVSQAQSDIDLPPTTDEPLEKAYSHQINL 480
DB 421 VTKVDFSQYDDQKNETSTQTYDSKRNNGHVSQAQSDIDLPPTTDEPLEKAYSHQINL 480
QY 481 CFLMDORRGTIPTFTWTHRSVDFNTIDAEKITQLPVVKAYALSSGASIIIEGPGFTGNL 540
DB 481 CFLMDORRGTIPTFTWTHRSVDFNTIDAEKITQLPVVKAYALSSGASIIIEGPGFTGNL 540
QY 541 LFLKSSNSIAKFKVTLNSAALLQRYRVRIRYASTTNLRLFVQNSNNDPLVIYINKTNK 600
DB 541 LFLKSSNSIAKFKVTLNSAALLQRYRVRIRYASTTNLRLFVQNSNNDPLVIYINKTNK 600
QY 601 DDLLTYQTFDLATTNSNMGFSGDKNELIIGAESFVSNKIIYIDKIEFIPVQL 652
DB 601 DDLLTYQTFDLATTNSNMGFSGDKNELIIGAESFVSNKIIYIDKIEFIPVQL 652

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